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ABSTRACT

This report describes the 1981-82 activities of the Los Medanos College (LMC) general education project, which focused on the development of guidelines for the revision, review, and evaluation of the general education program's basic tier of courses (Tier One) in the subject disciplines. First, 1981-82 project goals are specified: (1) the development of criteria that distinguish general education from non-general education courses for Tier One; (2) the revision or development of Tier One courses in light of these criteria; and (3) the recommendation for Tier One of those courses that satisfy the criteria. Next, the specific activities undertaken to accomplish these activities are discussed, which included a collegewide retreat, workshops to establish Tier One criteria, study group actions, and advisory committee activities. After a discussion of evaluation procedures, a review of project changes, and a summary of 1981-82 achievements, the report presents agendas and priorities for 1982-83. The bulk of the report consists of appendices which offer an overview of general education at LMC; basic information on the Tier One Project; listings of the project study group and General Education Committee members; a position paper on Tier One criteria and procedures for application to Tier One status; a course outline format and instructions for Tier One general education courses; a flow chart of the review and recommendation process; course outlines for astronomy and geography courses; and a list of experts consulted. (HB)

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ED217928

PROJECT PERFORMANCE REPORT FOR THE ACADEMIC YEAR 1981-1982

TO THE NATIONAL ENDOWMENT FOR THE HUMANITIES

Project Title:

# An Implementation Project to Complete the Integration of An Interdisciplinary General Education Mode Predicated on Certain Humanistic Assumptions

Log Number: ED 20036

Submitted by

John I. Carhart, President and Project Head

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Los Medanos College
Pittsburg, California

June, 1982

Report prepared by

Chester H. Case
Project Director



JC 820 296

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## INTRODUCTION

This is a report on the 1981-1982 academic year activities of the Los Medanos College (LMC) implementation project in general education. The project is now two thirds of the way through its grant period, September 1, 1981 to January 1, 1983. At LMC, this project is known as the Tier One Project, or TOP. (See Appendix A for a depiction of LMC's three tiered general education model.)

This report will describe and discuss project activities during the academic year 1981-1982. First, project goals and goals for the academic year 1981-1982 will be stated. Next, grant related activities will be discussed. Changes made in the original grant plan will be noted and explained. Finally, a summary and look ahead to the project's agenda and priorities for the final phase in Fall, 1982 will be presented.

## GOALS

Earlier projects in curriculum development, including the National Endowment for Humanities supported pilot project that is the predecessor to TOP, laid down the essential framework and philosophy of LMC's general education program. There remained to be completed, however, work on the basic tier of courses in the disciplines. The overall project goal has been to complete this work by developing in the light of the pilot project humanistically oriented criteria to guide the revision, review and evaluation of Tier One general education courses. This goal is to be achieved in three major phases. (See Appendix B for an overview of the project in "TOP in a Glance").

Specifically, the goals for Phases I and II in 1981-1982 have been:

1. To develop general education criteria that distinguish general education from non-general education courses for Tier One.
2. To revise or develop new Tier One courses in light of the criteria.
3. To review and evaluate proposed Tier One courses and recommend for Tier One those that satisfy the criteria.

These goals have been met.

GRANT ACTIVITIES, 1981-1982

In May, 1981, a day long, college wide off campus retreat was held to explain and inaugurate TOP. Faculty were invited to participate in the TOP Study Group, whose aim it would be to develop the Tier One criteria in Fall, 1981. Seventeen faculty from a variety of teaching fields responded to the invitation. (See Appendix C for the roster of the study group and their teaching fields.) These faculty, plus the four Deans and the project director made up the study group.

The main activity for Phase I, Fall, 1981, was the development of Tier One criteria. Essentially, the task before the group was to develop a list of criteria, or standards of measurement, which could be literally laid up against a proposed course outline, template fashion, to determine if a course were or were not a general education course in respect to its goals, objectives, content and pedagogy. Evolving the criteria consumed a great deal of time and energy and involved the painstaking resolution of complex philosophical, academic and political issues.

The process of developing criteria began with a day long workshop held prior to the opening of Fall classes. Clarification of purposes, team-

building, and review of LMC's existing general education program preceded a freewheeling brainstorming session in which a long list of items was generated in response to the question, "What ought a student learn in an LMC general education course?" The sixty-six items thus generated eventually were distilled down to the eight criteria approved as college policy four months later.

During the Fall, the TOP Study Group met twelve times, including one day long, off campus retreat. In order to develop "ownership" in the eventual criteria and the general education program, and to achieve a set of criteria that would be realistic and workable and yet challenging in the context of LMC, its student clientele, and its resources, incremental "grassroots" process was used. Successive drafts of criteria were prepared, critiqued, revised, and cycled back through the group. In the course of these cycles, key issues of definition, philosophy, and implementation were raised, debated and resolved.

The tangible outcome of the process was the position paper on Tier One Criteria and their application. (See Appendix D for the complete paper.) These are the eight criteria:

A. Intra-disciplinary

B. Modes of Inquiry

C. Aesthetics of Knowledge

D. Implications of Knowledge

E. Reading and Writing in the Learning Process

F. Critical and Effective Thinking

G. Creativity

H. Pluralism

The position paper is designed to set forth policy and procedure as well as general education philosophy and the criteria themselves. Each criteria is stated, defined, expanded upon in a narrative, and examples given of possible applications. The position paper sets up a structure and process for reviewing and recommending course outlines in light of the criteria.

In early January, 1982 after discussion and debate, the position paper with minor amendments was unanimously approved by the college community and recommended as college policy to the President who gave his approval and declared the position paper policy.

The main activity of Phase II, Spring, 1982, was the revision of course outlines. All faculty members were invited to write new courses or to revise previous general education courses in light of the criteria and present them as candidates for Tier One. Twenty-five course authors addressed themselves to twenty-six courses. (See Appendix E for the list of course authors and courses.)

Mostly, the work of revision was centered in the Areas and Sub-Areas among subject matter colleagues. Area Deans took responsibility for setting up meetings, explicating the criteria, and giving guidance on the preparation of course outlines. For purposes of Tier One courses, a special course outline format and instructions was developed. (See Appendix F for a copy of the Course Outline Format and Instructions.) Workshops were held early in the Spring to explain and illustrate with a sample course the new general education course outline format.

A general Education Committee (GEC) was set up and put into operation as called for in Part II of the Criteria position paper. (See Appendix G

for the roster of members.) The GEC met during the semester to discuss its charges and to develop procedures. Forms to report recommendations and a flow chart were prepared and communicated to course authors. (See Appendix H for the report form and flow chart.)

Twenty-six course outlines were conceptualized and committed to the prescribed format by their authors. The overall quality of the outlines was very encouraging. The criteria proved to be applicable, though in some instances difficult to satisfy, and the course outline format was workable. Some outlines were more fully realized in the "vision" of general education than others, perhaps because of the nature of the discipline itself as well as the familiarity of the authors with general education philosophy and the criteria. The press of time was certainly a negative factor for many authors. But the work in progress is very encouraging, and the next phase in Fall, 1982 will see intensive work in perfecting the course outlines as authors teach, evaluate, further revise and submit their courses for a final review. Several course outlines are included as appendices to give the flavor of the work in progress. (See Appendix I for course outlines for Astronomy and Geography.)

In early May, 1982, the GEC met off campus for a full day and on campus for a half day to review proposed course outlines and make recommendations. Each course was discussed, evidence of satisfaction of criteria sought, conditions for further development noted and recommendations made. The results of the GEC's work were disseminated to course authors and the LMC community. (See Appendix J for the Minutes and Report of the GEC.)

With the feedback to course authors, the transition to Phase III began. A workshop session was held mid-June to provide ideas and directions for curriculum work during the summer. The criterion, "Effective and Critical Thinking" was analyzed by a faculty member expert in the area and examples given on how it could be worked into instruction. Plans were made for a day long session prior to the opening of classes in the Fall, and for a series of seminar/workshops to be held in the Fall.

Also during Fall, 1981, an Advisory Committee, as called for in the grant plan was set up. This Committee consisted of faculty, students and administrators. Because it turned out to have no clearly apparent and viable purpose, was redundant to several pre-existing committees, and because college personnel were fully engaged in the activities of a very busy year, the Committee never got off the ground and was let go into abeyance. From the few early meetings of the Committee, however, came valuable contacts with Student Representatives (members of LMC's unique student government). The project director held several workshops with students to explain LMC's general education program, and to show how TOP and the criteria fit into the program. Feedback was received from the students. In cooperation with the Student Representatives, a college wide forum was held for the same purposes.

EVALUATION

Throughout the year, several types of formative evaluation were made. Outside evaluators Mr. Karl O. Drexel and Mr. John H. Porterfield monitored the project, frequently as participant observers, and fed ideas into the planning and operations of the on-going process. When Mr. Porterfield

passed away, to the great loss of the project and the college, Dr. Charles C. Collins took on the responsibilities of an outside evaluator and contributed his analyses of the process and the product as the project moved along.

A sub-committee of the TOP Study Group, the Planning/Writing Committee, also analyzed and evaluated the ongoing process and its products and offered suggestions for corrective planning to the project director and program participants.

To obtain expert opinion on the criteria, the position paper in draft form was sent by mail to seven persons nationally eminent in their knowledge of general education. Several were specialists in the community college. The written critiques by these consultants-by-mail proved to be very informative and helpful, and reassured the project that it was on target, both as to processes and the criteria. (See Appendix K for the list of specialists and a copy of the letter sent to each soliciting their response.)

CHANGES

No major changes in the direction, scope or intent of the project were made. Several minor changes were made as the result of formative evaluations and/or circumstances at the college.

Consultants were used differently than had been projected in the grant plan. At the early stages of developing the criteria and later in the course outline development it was concluded that outside opinion would be more confusing than helpful. Another factor deterring the use of consultants was the scarcity of suitable experts who could combine knowledge of general education, the community college, LMC, subject matter expertness and process skills.

One productive use of consultants was for the project director to confer directly with persons of particular competences and experience and feed the suggestions into the process. The consultants-by-mail strategy mentioned above was very effective.

The grant plan calls for a two week session after the semester's end for key faculty members to work on syllabi. This arrangement was not set up because it was not appropriate. Instead, faculty have been encouraged to undertake individual work plans on a contract basis for further course development during the summer.

The numbers of faculty involved was less than anticipated in the grant plan. The grant plan was predicated on an optimistic maximum of thirty faculty participants. Instead, participation in Phase I was seventeen, and for Phase II, twenty-five. Competition for faculty time and energy by other pressing college business, including accreditation, partly accounts for the discrepancy. The press of other college business put limits on the amount of time faculty could be engaged in TOP Study Group, the GEC, and in revision of courses. As a result of less time and fewer persons than originally forecast, the rate of spending for faculty compensation has been less than anticipated. Summer work and intensified efforts in the Fall, when the college will be relieved of many of the heavy pressures of 1981-1982, should bring spending into line.

SUMMARY

As noted above, the goals set for 1981-1982 were achieved. The project is on track and moving toward its culmination at the end of the Fall, 1982 semester. The major achievements for the year have been the development of the Tier One criteria, the rewriting of twenty-six courses to

satisfy the criteria, and the review and recommendations on the proposed courses by the General Education Committee.

Related achievements include the broadbased and sustained interdisciplinary dialogue among a diversity of faculty that culminated in a consensus on what ought to characterize a general education course. Moreover, key administrators have been deeply involved in the dialogue and have taken important roles. The involvement of so many faculty and key administrators will be to the long range benefit of the general education program and the successful application of the criteria, as they now possess shared information, values, and commitment to the project.

It has been a considerable achievement to generate criteria that are truly general education and intradisciplinary in character, challenging, humanistically oriented, worthwhile, and capable of attracting allegiance. The eight criteria arose from the realities of general education in the open door, tuition-free community college, the circumstances of LMC, and the potentials and limitations of the college's human resources. The criteria are of a "grass roots" not a philosophically derived, a priori nature. They are fashioned of native materials, and thus promise well for realization.

Another achievement of the project, not intended, but noteworthy, was the reinforcement the project gave - and received - from other concurrent projects such as a FIPSE funded project to develop tutorial work in reading and writing across the curriculum. The Tier One criterion on reading and writing in effect institutionalized a commitment to a basic precept promoted by the FIPSE project that is, that all courses are

courses in reading and writing development. At the same time, the work of the FIPSE project involved virtually all of the LMC faculty in studying strategies for promoting reading and writing throughout the college curriculum. This paved the way for the acceptance of the reading and writing criteria and gives cause for optimism in its effective implementation.

The difficult even onerous task of reviewing courses and making recommendations was accomplished by the GEC with professionalism, fairness, intelligence and firmness. This is no small achievement, but not an universally popular one. As might well be expected, there was some disaffection and resistance to the committee's decisions, but far less than might be expected and of a character that should dissipate.

The time frame of the project has been a major problem. Considering the kinds of work involved, the time frame has been punishingly short. It takes time to elicit ideas, to digest them and to form them up into criteria. It takes time to develop a course, and it takes time to study course outlines and to make responsible decisions. There are advantages, some argued, in a short time frame, as it forces the sustaining of an intensive effort with less slippage due to loss of momentum. But it would have been better to have more time so there could have been more interaction with course outline authors in the process of course development. A fallout from the exacting time pressures has been the numerous conditional approvals of course outlines. This is a major concern to the GEC, but one which is expected to be corrected during the Fall, 1982.

Another concern is that of instilling and perpetuating in the teaching faculty a sense of the spirit as well as the letter of general education teaching. Of course, LMC is not alone in this concern. It is

endemic in general education programs. The last phase will tell how well the project will go from the general education rhetoric and blueprints for Tier One courses to the actual delivery of general education to learners in the classroom. So far, the signs are propitious.

## A LOOK AHEAD: AGENDAS AND PRIORITIES

In Fall, 1982, the third and final phase of TOP will begin. Course outlines conceptualized in Spring, 1982 and developed over the summer will be implemented in the classrooms. Courses will be evaluated and further developed as they are being taught. A series of some 8 to 10 seminar/workshops in the early part of the semester will address the criteria and pedagogical concerns. Course outlines will be further refined and submitted to the GEC for a final review and recommendation in late Fall.

On the Fall, 1982, agenda is the evaluation of the project by the outside evaluators. Also on the agenda are incorporation of consultants into the process of course development as subject matter and/or pedagogy specialists, contact with feeder high schools to introduce and invite a critique of LMC's general education program, preparation of the end of project report and planning for dissemination of the results of the project and other materials, perhaps a monograph, that would be of value to others. Looking beyond the immediate scope of TOP, planning will begin for a thoroughgoing evaluation of the entire LMC general education program and for a revision and updating of the LMC publications and materials on general education to incorporate the outcomes of TOP.

Top priority in Phase III will go to the actual teaching and further development of Tier One courses and to the series of seminar/workshops. It is essential that course authors come together to swap ideas and experiences, identify and solve problems, lend mutual support and inspiration, and above all, to evolve and solidify among themselves a shared sense of what general education is, how it is done, why it is important for students, and how it can be a richly rewarding professional and personal experience for the instructor.

## APPENDIX A

General Education at Los Medanos College

**An Ethical Inquiry Into A Societal Issue:**

This second of the capstone courses offers students the option of studying one of several different societal issues. Currently, the choice can be made from these: "Freedom and Responsibility of the Mass Media," "Crime in America," "A Majority of Minorities," "Fossil to Fission: The Energy Story."

Like Humanistic Studies 2TG, these 3TG courses are interdisciplinary and take students through the content by a method of ethical inquiry that encourages students to look at the ethics of the situation as well as the body of available facts.

And like Humanistic Studies 2TG, this course teaches the skills of self-directed study (SDS) so students learn not only about a particular issue, but also become independent and self-directed for studying issues they will encounter long after they leave college.

**Physical Science 3TG**
or
**Biological Science 3TG**
or
**Humanistic Studies 3TG**
or
**Language Arts 3TG**
or
**Social Science 3TG**
or
**Behavioral Science 3TG**

} **An Ethical Inquiry Into A Societal Issue:**



*The purpose of education is to help each person experience more fully, understand more broadly, live more widely, perceive more keenly, feel more deeply, act more ethically; to pursue the happiness of self-fulfillment and to gain the wisdom to see that self-fulfillment is inextricably tied to the general welfare.*

—Los Medanos College Philosophy

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# General Education at Los Medanos College

*Education is not much of a hope, it is just the only hope we have.*

—Robert Hutchins

# General Education at Los Medanos College

The Los Medanos College curriculum is built around a general education program that is ranked among the top in the country by the renowned and highly respected Danforth and Carnegie educational foundations.

It is required for graduation, and, if fully taken meets most general education requirements for transfer to upper division colleges. Most important, it is required for responsible citizenship in a democracy. Only those courses with a TG designation in the title count toward meeting the minimum requirement of 26 units.

These must include one TG course each in behavioral sciences, language arts, humanistic studies, physical science, biological science plus two social science courses, one of which has to be social science 5TG, "Social Order and Institutions." All of this adds to a minimum of 20 units. The last 6 units will be earned from two capstone courses, Humanistic Studies 2TG, "An Ethical Inquiry into Societal Issues," and a 3TG course drawn from one of the six fields of study. The latter is an in-depth inquiry into a single societal issue. All of this is illustrated in the chart below.

## ASSOCIATE IN ARTS AND ASSOCIATE IN SCIENCES DEGREES AT LOS MEDANOS COLLEGE

General Education transfer and degree requirements (60 Units)

Take one in each of the first five areas and two in Social Science to include Social Science 5TG)

| LANGUAGE ARTS | BEHAVIORAL SCIENCE | BIOLOGICAL SCIENCE | HUMANISTIC STUDIES | PHYSICAL SCIENCE | SOCIAL SCIENCE |
|---|---|---|---|---|---|
| READING COMPOSITION SPEECH (LANGA 5TG | GENERAL ANTHROPOLOGY (BEHSCI 5TG | BIOLOGY AND HEALTH (BIOSCI 5TG | PERCEPTION AN APPROACH TO THE VISUAL ARTS ART 5TG | GENERAL PHYSICAL SCIENCE (PHYSCI 5TG) | ECONOMIC VIEW OF SOCIETY (SOCSCI 10TG) |
| COMPOSITION READING SPEECH (LANGA 15TG) | CULTURAL ANTHROPOLOGY (BEHSCI 8 G | GENERAL BIOLOGY (BIOSCI 12TG | MUSICAL LITERATURE MUSIC 10TG | INTRO TO CHEMI PHYSCI 10TG) | U.S. IN WORLD PERSPECTIVE (SOCSCI 32TG) |
| SPEECH READING COMPOSITION (LANGA 25TG) | PSYCHOLOGY FUNCTIONAL ASPECTS (BEHSCI 10TG) | PRINCIPLES OF BIOLOGY (BIOSCI 20TG | CREATIVE PRINCIPLES DRAMA 15TG) | INTRO TO PHYSICS (PHYSCI 15TG) | POL SCI FUNDAMENTAL ASPECTS (SOCSCI 40TG) |
| | GEN PSYCH (BEHSCI 11TG) | ECOLOGY (BIOSCI 25TG) | GENERAL HUMANITIES (HUMST 20TG) | GEN COLLEGE CHEMISTRY (PHYSCI 25TG) | |
| | INTRO TO SOCIOLOGY (BEHSCI 15TG) | | NATURE OF LITERATURE (HUMST 30TG) | GEN COLLEGE PHYSICS (PHYSCI 35TG) | |
| | SOCIOLOGY SOCIAL PROBLEMS (BEHSCI 19TG) | | PHILOSOPHY A WORLD VIEW (HUMST 40TG) | INTRO TO ASTRONOMY (PHYSCI 45TG) | |

Plus

| HUMANISTIC STUDIES | SOCIAL SCIENCE |
|---|---|
| AN INQUIRY INTO SOCIETAL ISSUES (2TG) | SOCIAL ORDER INSTITUTIONS (5TG) |

Take one of these six (3 Units)

| LANGUAGE ARTS | BEHAVIORAL SCIENCE | BIOLOGICAL SCIENCE | HUMANISTIC STUDIES | PHYSICAL SCIENCE | SOCIAL SCIENCE |
|---|---|---|---|---|---|
| AN ETHICAL INQUIRY INTO A SOCIETAL ISSUE (LANGA 3TG) | AN ETHICAL INQUIRY INTO A SOCIETAL ISSUE (BEHSCI 3TG) | AN ETHICAL INQUIRY INTO A SOCIETAL ISSUE (BIOSCI 3TG) | AN ETHICAL INQUIRY INTO A SOCIETAL ISSUE (HUMST 3TG) | AN ETHICAL INQUIRY INTO A SOCIETAL ISSUE (PHYSCI 3TG) | AN ETHICAL INQUIRY INTO A SOCIETAL ISSUE (SOCSCI 3TG) |

In addition, take 2 (2 Units)

PHYSICAL EDUCATION

and

Satisfy math proficiency requirement and reading and writing proficiency requirement

The remaining units (20 or 38) are elective or for major



### THE CAPSTONE COURSES

**Humanistic Studies 2TG: An Ethical Inquiry into Societal Issues**

This is the one course that is taken by all students who plan to graduate and/or transfer. It uses an interdisciplinary approach to investigate five major societal issues such as "Energy and Ecology." "The Limits of Growth," "The Population Explosion," "Nuclear War and other Nuclear Threats," and "Equality and Justice by Sex and by Race." These issues vary from year to year depending on current importance.

In each case students learn the dimensions of the severity of the problem, consider the options for dealing with the problem, explore the consequences following from each option and inquire into the ethics involved in choice of action. As a matter of fact, the whole experience is an inquiry into ethics, hence the title "An Ethical Inquiry into Societal Issues."

To help students learn how to learn there is a self-directed study components (SDS) in this course. Each student is obliged to select a topic of personal interest that is directly related to one of the units being studied, set study goals, design and follow a plan of investigation, analyze the ethical issues involved and, finally, prepare a written report of this individual study.

## APPENDIX B

Tier One Project at a Glance

## TIER ONE PROJECT AT A GLANCE

Grant source: National Endowment for the Humanities

Grant amount: $107,000 Grant type: Implementation grant

Time span: September, 1981 to January 1983 (three semesters)

Direction: Project Director - Chester Case

Advisory Committee - College wide (faculty, students, administration)

Purpose: To re-examine, revise and restructure Tier One Courses

| Phase | Goals | Activities | Who's Involved | Outcomes |
|---|---|---|---|---|
| Pre-Project Spring, '81 | To plan and organize | Planning Establish Advisory Comm. | Director Adv. Comm. | Information to college Operational plans |
| Phase I Fall, '81 | To review, discuss and develop criteria for Tier One courses | Retreat Seminars | + 30 faculty Deans Consultants Evaluators | Criteria for Tier One Courses |
| Phase II Spring, '82 | To apply criteria and review, revise courses | Seminars | Same, plus Editing team | Course outlines |
| Phase III Fall, '82 | To field test revised, new courses | Seminars | Same | Field tested and fine-tuned courses |
| Post Spring, '83 | To evaluate and disseminate | Prepare report, Conference? | Director Evaluators Adv. Comm. | Project report Materials and processes for dissemination |

## APPENDIX C

Roster of Tier One Project Study Group

## MEMBERS OF TIER ONE PROJECT STUDY GROUP

### FACULTY

| | |
|---|---|
| Olga Arenivar | Speech |
| Judy Bank | Language Arts, Reading |
| Bill Crouch | Nursing |
| Jerry Davis | Biological Sciences |
| Larry Howard | Art, Sculpture |
| Dick Livingston | Journalism |
| Bob Marshall | Social Science, Economics, Geography |
| Dave Nakaji | Physics, Mathematics |
| Ricardo Ontiveros | Social Science |
| Andres Ochoa | Welding |
| Gil Rodriquez | Mathematics |
| Alex Sample | Sociology, Counselling |
| Thelma Scott | Psychology, Counselling |
| Jean Shrader | Humanities, Music |
| Stan Smith | Humanities, Music |
| Eric Yeoman | Anatomy and Physiology |
| Bob Zavala | Child Development |

### ADMINISTRATORS

| | |
|---|---|
| Sandy Booher | Dean, Humanistic Studies and Language Arts |
| Stan Chin | Dean, Physical and Biological Sciences |
| Vince Custodio | Dean, Behavioral Sciences and Counselling |
| Carlton Williams | Dean, Social and Economic Sciences |

### CHAIRPERSON

| | |
|---|---|
| Chester Case | Director, General Education Project<br>Social Sciences, History |

# APPENDIX D

A Position Paper

Tier I Criteria and

Procedures for Application

# A POSITION PAPER
# TIER I CRITERIA AND
# PROCEDURES FOR APPLICATION

December 1981

# Introduction

## The Purpose of This Paper

The specific purpose of this paper is to establish criteria that will be used to determine whether or not a course can be designated as a Tier I, general education course and to establish a structure and procedure for the application of these Tier I criteria.

## Recommended Action

The members of the Tier I Project Study Group wish the Los Medanos College clusterpersons to approve and recommend for college policy the Tier I criteria, and procedures and structure for the application of said criteria, as set forth in this paper.

## The Problem to Which This Paper is Addressed

Los Medanos College has a strong commitment to general education, and over the years has evolved a distinctive, three tiered model. Yet, the model is not complete. Though Tier II (Humanistic Studies 2TG) and Tier III (3TG series) are in place and operating satisfactorily, Tier I, the basic disciplinary courses need attention. The need for attention has been signalled in Position Paper 77-3, the previous accreditation report, and the conclusions of the 2TG-3TG general education project evaluators.

Needed to complete the development of Tier I courses

are criteria to designate what is or what is not a Tier I course. Up to now, there has been no clear, comprehensive statement nor consensus on what constitutes a general education course for Tier I. Also pending since the passage of Position Paper 77-3 is a direction to incorporate into general education disciplinary courses the interdisciplinary and other aspects of the now abolished generic course. Until these matters are addressed and resolved, the model will be incomplete, and no effective and consistent curriculum development and decision making for Tier I courses can take place. The criteria and process proposed in this paper will resolve these matters.

The Development of This Position Paper

In Spring 1980, application was made to the National Endowment for Humanities (NEH) for an implementation grant to follow the previous NEH pilot grant that funded the 2TG-3TG development project. The proposal was accepted and funded for a three semester period. The project has three phases, which can be briefly stated as follows:

Fall 1981 - Tier I criteria and procedures developed

Spring 1982 - Application of Tier I criteria; revision and/or development of course outlines

Fall 1982 - Field test, evaluate and revise Tier I courses

During Phase I, a Tier I Project Study Group was formed. The primary task of the group was to develop criteria that would be compatible and consistent with the existing general education model, that would have a genuine education character, and that would be workable and worthwhile. This was a difficult task. The group met frequently and at length to generate ideas, discuss and debate. Now, after numerous drafts and revisions, the study group has arrived at this present paper, which it recommends to the LMC clusterpersons.

Organization of the Paper

Having introduced the topic and shown the problem to which it is addressed, this paper will be now devoted to the criteria and the procedure for their application. Leading into the presentation of the criteria themselves will be a discussion of the criteria and a preamble written to convey some of the more intangible but necessary aspects and spirit of general education that the criteria would not readily communicate. After the criteria are given, the paper turns to the structure and procedures for applying the criteria.

## Tier I Criteria

### General Education and Education in General

There are numerous and important attributes inherent in all good education, including general education. These are attributes that set high standards for any course seriously designed and taught. A Tier I course would certainly be expected to embody these attributes, though they are by no means exclusive to general education, and thus not criteria per se.

Some of these attributes should be mentioned. Any course, for instance, ought to be learner-centered. Any course ought to have as overarching intentions the enhancement of the learner's abilities and capabilities and the learner's acquisition of knowledge and skills. Any course ought to offer learners the opportunity to expand their understanding of self and others, and to promote respect for self and others. Any course ought to have a positive effect on a learner's sense of competence and assist in the discovery and unlocking of personal potentials. Any course ought to contribute positvely, directly or indirectly, to the way learners live their lives in work, leisure and recreation, in their self-fulfillment and in service to others and in contributions to society. Any course ought to work for the learner's increasing effectiveness as a communicator by helping them be effective in writing, reading, listening and speaking.

Preamble to Tier I Criteria

This preamble strives to convey the spirit of general education, while the criteria convey something of the letter. If there is a distinctive general education curriculum, there is a distinctive general education pedagogy. This pedagogy contributes much to the unique flavor of general education. It may be expressed in a number of ways, be they fleeting and spontaneous or studied and systematic. It may be expressed in the manner and style of instruction, in the selection and handling of content and materials of the course, in the way of regarding the knowledge of the discipline and its possible significance for the learner and how the learner will use it.

It is an active pedagogy that strives to engage the learner in the applications of knowledge to the problems and issues of the real world, public and personal. It is a pedagogy that seeks to select from the vast realms of knowledge of the discipline those materials that contribute in an important way to an explication to the learner of the world and how it works. It is a pedagogy that is less concerned with initiating a neophyte into the details of a discipline than it is with enlarging the learner's comprehension and utilization of knowledge for general understandings. It is a pedagogy ever on the alert for the opportunity to spin out from a point of study to larger and wider ranging connections with other

realms of knowledge, other concerns. It seeks to integrate knowledge, to impart skills, to invite the learner to participate in learning that which every person needs to know.

There is a spirit to general education pedagogy. It is something of a frame of mind, a manner of teaching and planning for instruction, that raises questions, draws learners out, makes connections, interprets, lingers on an observation about the where, or why, who or when of the origination and character of some knowledge, that nudges the learner to use the knowledge and to grow in skills and confidence. This spirit, elusive but essential, and refracted into a multitude of variations by the varying characters of the general education instructors, animates general education pedagogy.

To be a part of the distinctive general education curriculum, a Tier I course ought to have certain general, overall attributes in addition to those to be singled out by the criteria. In respect to what is taught, and how it is taught, a Tier I course ought to:

- show the interrelatedness of knowledge, life, events and phenomena on this Spaceship Earth;
- help learners expand and make more accurate their global perspectives;
- be infused with an humane perspective;
- awaken the learner to a consciousness of the future;
- broaden the learner's awareness of the commonalities and uniqueness among the peoples of the Earth;

- impart to the learner a sense of being a participant in the dialogue of the common learning;
- give learners the opportunity to learn about values, their own and others, and to understand the origins, the shaping and influences of behavior of values.

Moreover, in respect to how it is framed, a Tier I course ought to:

- strike a proper balance between the substantive content of the discipline and the general education elements; the course should be neither watered down and made superficial; nor overladen with the necessities that derive from the grounding of a major, or specialist-to-be in the fundamentals of a discipline;
- resonate and reinforce other general education courses but not be redundant or repetitive.

Finally, satisfying the criteria and infusing in the courses the spirit of general education ought to have the effect of giving Tier I courses a distinctive, common stamp. The criteria and spirit, however, must never be allowed to become instruments for exacting excessive conformity. Each instructor must have the freedom to build on his/her own strengths as a teacher, and to utilize her/his special interests, so long as the essential integrity of the criteria and the spirit of general education are upheld. The Tier I courses should move in formation, but not in lock-step.

Characteristics and Applications
of the Tier I Criteria

Overview. The Tier I criteria will be used to determine whether or not a course should be given the designation "G" for general education. A criterion, by definition, is a standard, or measure, for making judgments. The Tier I criteria will be applied to any course offered as a candidate for Tier I, and if the criteria are satisfied by evidences in the course outline and in an oral explication of the course outline, the designation will be accorded.

Characteristics of the Criteria. Each criterion is necessarily broad and encompassing. While a criterion will delineate a trait desired in a "G" course, it will not spell out exact, specific ways in which a course outline should satisfy the criterion. That specificity is best supplied by those best suited to be specific, that is, instructors in the disciplines. The criterion does not call for specific content, methods, learner outcomes, or the like, because these will vary according to the discipline and will be set forth in course outlines. Each criterion, however, will have a narrative expansion with examples and illustrations to make more clear its intent. The examples are neither exhaustive nor prescriptive, only illustrative.

Four of the criteria deal with characteristics of the knowledge of a discipline. These criteria ask that a Tier I

course teach about the knowledge as well as the knowledge itself. Other criteria deal with processes that engage the learner in the use of the knowledge.

Evidences for Satisfaction of Criteria. Evidence to satisfy the criteria will be sought in the course outline and will include: course goals and objectives, course overview and rationale, the course content and materials, instructional procedures and course policies and procedures. Written evidences will be expanded and explicated by oral presentations.

Application of the Criteria. The criteria are necessarily broad, as the disciplines vary in content, materials, and character. Hence, it is necessary to apply criteria in ways that offer flexibility, that are reasonable, and that have expectations that are appropriate to the possibilities or limitations inherent in a given discipline. Criteria will be satisfied to a degree reasonable and appropriate to a given discipline. Some disciplines should be able to treat some criteria with greater depth or emphasis than other disciplines, and these may be indicated in a criterion.

A Caution. There has been concern expressed that a thorough-going fulfillment of the Tier I criteria in a course outline will cause the displacement of the proper disciplinary

content of the course. This should not be the case. The integrity of the subject matter must be observed, while the criteria are being satisfied. While a Tier I course is not primarily a course for the specialist-to-be or the major, it nevertheless must have a solid grounding in the discipline. The content must be comprehensive and have intellectual integrity. The general education elements should weave through the content in a compatible not pre-emptive manner. The general education elements in many cases will be suitably introduced in the <u>way</u> the content is taught—or methods and/or process—in the selection of materials, and through the perspectives of the instructor.

## Tier I Criteria

Following are the criteria for Tier I courses:

A. Interdisciplinary

B. Modes of Inquiry

C. Aesthetics of Knowledge

D. Implications of Knowledge

E. Reading and Writing in the Learning Process

F. Effective Thinking

G. Creativity

H. Pluralism

## A. Interdisciplinary

### Criterion

Is the course interdisciplinary?

### Narrative Expansion

An interdisciplinary course connects with other disciplines in its family of disciplines, as grouped in families in LMC's sub-areas. An interdisciplinary course includes, along with the content unique to itself, the fundamental concepts, generalizations, principles, values, attitudes and belief systems common to other disciplines in the given family. Thus a learner studying one course in the social sciences would gain a generalized understanding of the core of shared attributes that are common to the various disciplines of social science. The interdisciplinary course should reveal to the learner the interrelatedness of knowledge.

To satisfy this criterion, each Tier I course will include as content references to the commonalities and interrelatedness of the disciplinary family and in instructional methods show the linkages among the disciplines. Also, a given course taught in an interdisciplinary manner will call upon the knowledge from other disciplines in the family in the study of a given topic.

### Illustrations and Examples

An interdisciplinary course could offer as content information on the commonalities that unify a disciplinary family.

A theme or topic in a given course could be studied from

the perspectives of other disciplines in the family. Thus a topic in history would be explicated by the perspectives of economics and/or political science.

Examples could be offered from the lives of scholars who have approached the generation of knowledge from an interdisciplinary perspective.

## B. Modes of Inquiry

### Criterion

Does the course teach the modes of inquiry indigenous to the discipline?

### Narrative Expansion

All disciplines have modes of inquiry, that is, ways of generating and testing knowledge that are accepted and integral as a traditional part of the discipline. Frequently, a mode of inquiry may be referred to as a research method, but it may also be a systematic or patterned way of generating knowledge. Learning a discipline's modes of inquiry should enlarge a learner's understanding of a discipline and make available to the learner, for possible emulation, a model of inquiry.

Fields of knowledge develop in historical and social milieux. Understanding when, how, and why the modes of inquiry and knowledge of discipline came into being will add to the learner's understanding of the discipline.

To satisfy this criterion, each Tier I course will teach, as content and as method, the modes of inquiry of a given discipline, and comment on the development of the modes of inquiry and knowledge of the discipline.

### Illustrations and Examples

As a way of teaching a mode of inquiry, for example, an history course should provide the learner with a kit of historical materials pertaining to an event and ask the learner

to use historical methods to create an account of the event. Or, in conducting a laboratory experiment, the physical science learner could be asked to follow the steps of the scientific method.

Examples of modes of inquiry would include scientific method, literary analysis, statistical analysis, hypothesis testing, elements of artistic excellence or logic of thought.

Instances in the lives of scholars, artists, writers, or scientists that tell of the circumstances of the generation of knowledge or of break-through applications of a discipline's mode of inquiry can be included as course content.

## C. Aesthetics of Knowledge

### Criterion

Does the course teach about the aesthetic qualities of the knowledge of the discipline?

### Narrative Expansion

The aesthetic quality or dimension of the knowledge of a given discipline is important for learners to consider in order to attain a deeper understanding of the discipline. That is, the learner should be engaged with the joy, beauty, elegance of the knowledge. Teaching this quality of the discipline should lead learners to appreciate and understand the majesty and expanding vastness of human accomplishments in the generation of knowledge and also the vastness of that which remains mysterious and unknown. A learner may learn that with the advent of knowledge comes the comprehension of ignorance.

To satisfy this criterion, each Tier I course will comment, in the content of the course, or will convey through instructional methodology, the aesthetic qualities of knowledge. This criterion may be satisfied by explicit content, but often its message may be conveyed in the process of instruction, through demonstration, by examples, or through the observations of the instructor.

Illustrations and Examples

As a way of drawing attention to the aesthetic aspect of knowledge, the learner might be invited to contemplate the intricacies and wonders of the living cell, or the learner might be led through an elegant proof or ingenious solution of a problem. The instructor could model in his/her comments an appreciation of the aesthetic aspects in the course of teaching about music, literature, art or other knowledge.

## D. Implications of Knowledge

### Criterion

Does the course explore these implications of the knowledge of the discipline; values, ethics and future?

### Narrative Expansion

The knowledge of a given discipline will embody values and pose ethical implications, and suggest possible consequences for the future. Considering these aspects will lend to the learner's understanding of the significance of knowledge in a world where knowledge is both a commodity and power, and where the generation and use of knowledge can impact on the present and shape the future. Each Tier I course will be expected to comment on these aspects of knowledge in order to satisfy this criterion.

### Illustrations and Examples

The values inhering in a discipline might be explored by examining two contrasting forms, for example, punk rock and classical music.

For a given discipline, examples can be provided that show the impact of knowledge, such as the discovery of the microbe, the theory of evaluation, invention of dynamite, the concept of the unconscious, electricty, the invention of the transistor.

Trends in the generation and use of knowledge can be

extrapolated into the future.

Values aspects and ethical implications of episodes in the development and application of knowledge can be portrayed and critiqued, e.g. the ethical dilemmas facing scientists who developed the atomic bomb, or genetic engineering, or development of techniques for mass persuasion and engineering of consent in politics and marketing.

## E. Reading and Writing in the Learning Process

### Criterion

Does the course provide opportunities for learners to develop higher cognitive skills through reading and writing?

### Narrative Expansion

Tier I courses will demand the intellectual processes of analysis and synthesis, of comprehending relationships and establishing new ones. In order for learners to be able to organize facts and ideas into a meaningful framework, and in order for new facts and ideas to become integrated with personal experience, a Tier I course should require a significant amount of reading and writing appropriate to the discipline. Writing, in particular, should be used to develop thinking and to promote learning, rather than simply serving in its traditional role as evaluation instrument to measure student progress. Reading assignments should serve a similar function and this should be viewed as information, concepts, and ideas to be intellectually processed, rather than memorized.

### Illustrations and Examples

In addition to, or in place of, traditional papers and lab reports, students should learn to use writing as a way to solve problems, to come up with new ideas, to record insights or areas of misunderstanding for themselves as well as their

instructors. This can be done through journals, logs, and occasional brief in-class writing periods, as well as through more traditonal writing assignments. Students should view class reading assignments as examples of the processing of information and thus, in addition to "learning facts," might inquire into the manner of their presentation (e.g. the simple statement, "Columbus discovered America," should be examined for its implications). This will help students gain competency in reading and increase their flexibility of thought.

## F. Effective Thinking

### Criterion

Does the course provide opportunities for learners to enhance their effectiveness in thinking?

### Narrative Expansion

Effectiveness in thinking includes independent thinking and critical thinking and the application of these to problem solving and decision making.

To meet this criterion, each Tier I course will be expected to contribute to the learner's capacities as an effective thinker. For the most part, this criterion would be approached through processes of instructional methods rather than content per se.

### Illustrations and Examples

The enhancement of thinking effectiveness would include, for instance, teaching stragegies and content that involve learners in deductive and inductive thinking, recognition and repair of logical fallacies, operations of analysis, synthesis, analogous thinking, conceptualizing, strategies for problem solving and decision making, guessing, and the use of intuition.

Independence in thinking would be enhanced, for instance, by encouraging learners to develop confidence in their capacity to make judgments, to encourage toleration of ambiguities, to

resist stereotyped thinking and propaganda, to understand and cope with pressures to conform in thinking by peers or media, and to encourage in the learner a questioning attitude and a willingness to take risks.

Course outlines might include as instructional methods various processes of instruction that model effective thinking strategies. Exam questions, laboratory problems, discussion assignments or other class exercises can involve the content and materials of the discipline as a basis for the application of effective thinking instruction.

## G. Creativity

### Criterion

Does the course introduce creative processes and examples of human creativity?

### Narrative Expansion

Creativity, though difficult to define, is generally regarded as an important key to individual learning as well as a major source of human expressiveness. A broad description of creativity could include: the use of imagery and imagination; the use of symbols and media to convey feelings, ideas, or meanings. Also, creativity can be defined as seeing the familiar in an unfamiliar way.

As creativity is essentially a process and not content per se, in most cases it would be addressed through instructional methods. Instructional methods and/or content should affirm the worth of creativity and endorse personal creativity.

To satisfy this criterion, each Tier I course should offer learners opportunities to engage in creative behaviors and introduce and consider appropriate examples of creativity.

### Illustrations and Examples

To satisfy the common criterion, a Tier I course might, for example, present, analyze, and appreciate examples of creative endeavors in the discipline.

As an exercise, learners might be asked to come up with

their own personality theories, to reinterpret an historical incident, to account for an anomalous phenomenon.

Include activities such as brainstorming, conceptual blockbusting, imaging, visualizations, and explore their application to real life situations.

Discussion of the varieties of creative activities.

To satisfy the particular criterion, a course in the visual and performing arts could engage the learner in a study of modes and media of creative expression, and directly engage the learners in their own creative expression. The course could culminate in a group production.

## H. Pluralism

### Criterion

Does the course encourage learners to consider the variety of perspectives, experiences and persuasions that have an impact on the society?

### Narrative Expansion

In a nation and world made up of many groups and individuals, it is important to consider the viewpoints and contributions of the variety of cultures as well as the dominant culture, of women as well as men, of minority groups and their members as well as the majority group and its members. In most cases, this criteria can be satisfied by instructional processes in which contrasting views are presented and examined, open-mindedness in considering a range of data, including conflicting data, is encourage, examples offered, and mechanisms of stereotypic, ethnocentric or monolithic thinking are examined. Social sciences, behavioral sciences, humanities, language arts, and biological sciences should be able to introduce course content to satisfy this criteria.

### Examples and Illustrations

The contributions by persons who are identified with minority groups to the knowledge of a discipline can be noted, along with the stories of the circumstances of those contributions.

The positive aspects and strengths deriving from diversity and variety in viewpoints in analysis and problem solving may be modeled and practiced by learners.

Social and psychological theory and concepts that shed light on the mechanisms of discrimination and inequality can, where appropriate, be the subject of study.

Postscript to Tier I Criteria

All Tier I courses, when they satisfy these criteria, will have a distinctive general education character. When learners take a Tier I course, they will have the opportunity to learn the basic knowledge of the discipline, and more; they will have the opportunity to learn about the knowledge, its uses and implications. They will have the opportunity to enhance their own skills in the use of knowledge. This can happen in one course, and be reinforced and expanded as more Tier I courses are taken.

And perhaps there will be for learners a strengthening, or perhaps an awakening, of a quest to form, enrich and enlarge a world view. By world view is meant a personal way of perceiving, valuing and putting in perspective the experiences in life. A world view may for one person be relatively simple, while for another highly sophisticated; for one it may be informed by a religion or a philosophy; for another it may be shaped by a unique and individual quest for meaning.

Should a learner take the Humanistic Studies 2TG and a course in the 3TG series, the quest for meaning and the evolving of a world view may be further encouraged. And perhaps more. If our courses have been well wrought and if we have taught them well, and if the learner has engaged us and our courses with willingness and profit, then perhaps

the general education program will have achieved a high order of purpose by helping the learner continue a lifetime of more effective and active learning.

## Application of Tier I Criteria and Designation of General Education Courses

### Introduction

During Phase II (Spring 1982) of the Tier I Project, the criteria developed in Phase I will be applied to all Tier I courses and to any new course proposed for Tier I. These courses will be revised, as needed, to satisfy the Tier I criteria. Instructors teaching general education courses will lead in the revision of their courses, in consultation with their respective sub-area, areas, and area dean.

During the revision plan, TOP activities will include workshops to introduce and explicate the criteria. The services of outside consultants on subject matter or processes can be secured. Also available for advice and consultation will be the General Education Committee, to be described below.

In general terms, the procedure for Phase II will be this: When a course outline has been revised, or a new course outline developed, it will be submitted to the General Education Committee which will study the outline and confer with the author(s) to judge if the Tier I criteria have been satisfied. If the criteria have been satisfied in the judgment of the committee, the committee will recommend that the course be designated as general education. The

structure and procedures for applying the criteria will now be set forth in more detail.

General Education Committee

1. Functions of the General Education Committee (GEC)

   The general and continuing functions of the GEC are:

   1.1 To provide advice and consultation to persons engaged in revising or developing a new course for Tier I

   1.2 To review a course proposed for Tier I for satisfaction of the Tier I Criteria and to recommend whether or not the course should be designated as general education

   1.3 To consider matters, internal to LMC or external, that bear on the general education program and to make recommendations

   1.4 To maintain an oversight of the Tier I criteria and general education program and make recommendations

2. Status of the General Education Committee

   2.1 The General Education Committee will be a standing committee as defined in the LMC governance plan.

3. Membership of the General Education Committee

   3.1 Two faculty members from each of the four areas, to be selected by the area. The term for a faculty member will be two years. During the first year of the General Education Committee, one-half of the faculty will serve for one year, in order to stagger terms for continuity.

3.2 The Dean of each area

3.3 The Director of TOP, for the duration of the Tier I Project

4. Procedures for the General Education Committee

4.1 The GEC will select its own chair.

4.2 The GEC will apply the Tier I criteria to all courses proposed for Tier I and judge whether or not the criteria are satisfied to a degree reasonable and appropriate to the discipline of the course. The GEC will recognize that not all disciplines provide the opportunity for the equal satisfaction of the criteria. Again, recognizing the variability among disciplines, the GEC will regard a course outline as a totality in making its judgment.

4.3 The GEC may call upon the author(s) and/or instructor of the course to explain and expand upon a course outline in an oral dialogue.

4.4 Recommendation will be made upon the affirmative vote of two-thirds of a quorum of the committee. A quorum shall consist of over half of the committee membership.

4.5 The GEC will keep a record of its votes on recommendations and notes on its decisions.

4.6 Meetings of the GEC will be open.

4.7 After a new course has been recommended by the GEC for designation as a general education course, the

course will enter the established LMC governance process for new course approval.

4.8 During Phase II, Spring 1982, the GEC will determine if a course outline should be considered a revised course and therefore exempt from the new course approval process, or a new course. A course revised to satisfy Tier I criteria will not be considered a new course unless there has been fundamental and substantive changes in course goals, objectives, content, and/or materials.

4.9 After Phase II, new courses proposed for Tier I and substantively revised Tier I courses will be submitted to the GEC for a determination whether or not they satisfy Tier I criteria.

5. Sequence

Typically, the sequence of events for revision, creation of new courses, and designation will be as follows:

5.1 Introductory workshops will be held to discuss the criteria and revision process for instructors teaching or interested in developing Tier I general education courses.

5.2 Instructors, in consultation with their sub-area, area, area dean, will review the present course outlines for Tier I courses. The GEC will be available for consultation and advice.

5.3 Instructors, in consultation with their sub-area, area, area dean, and GEC will begin course revision. Workshops will be available to provide inputs on ways to satisfy the criteria and incorporate general education expectations into the course outline.

5.4 The revised or new course outline is submitted to the GEC, which may confer with the author(s) of the outline.

5.5. The GEC will make a judgment of satisfaction of the Tier I criteria and make a recommendation of:

5.5.1 designate the course general education, or

5.5.2 refer the course outline to the author(s) for further development.

## APPENDIX E

Roster of Course Authors and Course Titles

## ROSTER OF COURSE AUTHORS AND COURSE TITLES

### BEHAVIORAL SCIENCE

| | |
|---|---|
| Gail Boucher | General Anthropology |
| Gail Boucher | Cultural Anthropology |
| Estelle Davi and Thais Kishi | Functional Psychology |
| Thelma Scott | General Psychology |
| Alex Sample | Introduction to Sociology |
| Alex Sample | Social Problems |

### SOCIAL SCIENCE

| | |
|---|---|
| Chester Case | United States History |
| Robert Marshall | Introduction to Economics |
| Robert Marshall | Geography |
| James Preston | Social Order and Institutions |

### PHYSICAL SCIENCE

| | |
|---|---|
| Kate Brooks | Introduction to Astronomy |
| Angel Juarez and Mitch Schweikert | Introduction to Chemistry |
| Angel Juarez and Mitch Schweikert | General College Chemistry |
| Dave Nakaji | General College Physics |
| Ed Rocks | Introduction to Physical Science |
| Ed Rocks | Introduction to Physics |

### BIOLOGICAL SCIENCE

| | |
|---|---|
| Jerry Davis | General Biology |
| Jerry Davis and Chris Meek | Health Biology |
| Chris Meek | Ecology |
| Paul Hansen | Principles of Biology |

### HUMANISTIC STUDIES

| | |
|---|---|
| Judy Bank, Jay Cameron Ross MacDonald and Pablo Gonzales | The Nature of Literature |
| Larry Howard | Humanities: Visual Art |
| Jean Shrader and Stan Smith | Humanities: Music |
| Dick Livingston | Mass Communication |
| Connie Missimer | Philosophers of the World |
| Connie Missimer | Critical Perspectives |

## APPENDIX F

Course Outline Format and Instructions for

Tier I General Education Courses

LOS MEDANOS COLLEGE

# COURSE OUTLINE FORMAT AND INSTRUCTIONS FOR TIER I GENERAL EDUCATION COURSES

## INTRODUCTION

A course outline for a Tier I course will have to convey more information than the usual course outline. To meet this need, and to make the task of preparing a Tier I course outline more systematic, and, hopefully, easier, this special course outline format has been devised. This course outline format should enable a reader to see readily where and how Tier I criteria are satisfied, as well as give a good picture of the character of the course, what it covers, what it postulates as learner outcomes, how it is organized and how it is to be taught.

Since the General Education Committee must review and recommend course outlines proposed for Tier I, it is important that ways in which criteria are to be satisfied are clearly visible and unambiguous. This visibility will make the work of the Committee more efficient. It will also help the Committee make fair and objective recommendations.

This Tier I course outline has essentially the same components as the standard Los Medanos College course outline format, only components have been rearranged and some have been given added emphasis. Goals and objectives that relate to the Tier I criteria, for instance, are given a strong emphasis and ask for fairly detailed information. This course outline asks for an overview and rationale, but with a different emphasis. The overview is similar. It asks for a brief synopsis of the course. But the rationale asks for a discussion of

the general education and Tier I attributes of the course. In effect, the rationale tells why the proposed course should be a general education course.

Another difference between the standard course outline format and the Tier I course outline format is of a mechanical nature, and should make the course outline both easier to do and easier to review. This course outline will be completed on standardized forms. These forms are intended to give the author of a course outline clear guidance as to what is expected, and at the same time to provide pointed and concise information to the reviewers of the course outline.

Here are the components of the Tier I course outline. (Instructions will follow).

1. Catalog description
2. Overview and Rationale
3. Goals and Objectives
   - 3.1 Course content goals
   - 3.2 Criteria related goals
   - 3.3 Other goals
4. Texts and Other Materials
5. Evaluation and Grading Plan
6. Course Policies

INSTRUCTIONS

1. Catalog Description. The catalog description should include the following:

   1.1 Course title and number

   1.2 Unit value

   1.3 Mode of instruction

   1.4 Brief description of the course

   1.5 Articulation statement

   1.6 Prerequisites

   See page 1, course outline format, for the catalog description form.

2. Overview and Rationale. The overview and rationale tell about the course and how it ties in to Tier I and the general education program. This section of the course outline should orient a reader to what the course covers and what argues for its inclusion in Tier I. It also tells what other disciplines are in the course's intra-disciplinary family.

The overview is a narrative description of the course. It should inform a reader of what are the major goals of the course, objectives, and content. Organization of the course, instructional procedures, policy or materials should be mentioned if they have special importance for the course. It is not necessary to enumerate the Tier I criteria in the narrative overview. The rationale should tell why this course is offered as a Tier I general education course. Attributes of the discipline that make it appropriate as a general education course should be mentioned. See page 2 of the course outline format for the Overview and Narrative form.

3. Goals. First, a definition: a goal tells what the course intends to do. (This is in contrast to an objective, which tells what a learner should know, be able to do, experience or feel as a result of taking a course). To simplify the course outline, goals will be set out in three categories.

3.1 Content goal: each course outline will have in it a standard goal statement related to the content of the course. This statement is:

The intent of this course is to introduce the following course content to the learner.

Following this goal statement, a topical outline of the course will show the intended course content. Objectives need not be stated here. See pages 3-4 of the course outline format for the Topical Course Outline form.

3.2 Criteria related goals: for each of the eight criteria, a form will be provided. See pages 5-12 of the course outline format. (If the space on one page proves to be insufficient, duplicate the necessary form and add to the course outline.) Each criteria is phrased as a generalized goal statement. From this general criteria related goal, sub-goals appropriate to the given discipline should be derived.

The form for each criteria is divided into columns. Information will be put into these columns to show how the criteria are to be satisfied. These columns are:

3.2.1 sub-goals - sub-goals relate back to the criterion and tell what the course intends to do to satisfy the given criterion, as appropriate to the content and processes of given discipline.

3.2.2 objectives - in this column, objectives that connect to sub-goals should be given. Objectives describe what the learner should be able to do, to know, to experience or feel, as the result of taking the course. An objective describes a learner outcome. Objectives, or learner outcomes, can be stated in terms of:

cognitive domain, i.e., knowledge, fact, theory, concept, generalization

affective domain, i.e., ethics, values, attitudes, beliefs, feelings, experience

skills domain, i.e., operations, performances, manipulations

3.2.3 The content of the course will have been shown in the topical outline. Use the outline numbering system for references to show in this column the content that is used in connection with a given sub-goal and objective.

3.2.4 Instructional procedures/materials - if instructional procedures (i.e., teaching methods, strategies, pedagogy) or materials of instruction are means by which a criterion is to be satisfied, they should be indicated (briefly) next to the pertinent goal and objective, and perhaps, the content.

3.2.5 If the course outline is to include some aspect of teaching/learning that cannot be placed in the columns provided, make note on the bottom of the form and explain.

3.3 Other goals and objectives: If a course outline has goals and objectives other than those covered in the course content goal and the criteria related goals and objectives, use the Other Goals and Objectives form. See page 13.

4. Texts and Other Instructional Materials. Give the relevant information on required and recommended texts in this section. Tell what other instructional materials will be used, but describe them by type and character. Do not give specific titles of video recordings, for instance, unless they are an integral, on-going component of the course. It is assumed that titles will change as materials are updated. See page 14.

5. Evaluation Plan and Grading Plan. This component has two parts, a description of how the learner's work will be evaluated, and in a general way, how grades will be calculated. See page 15.

6. Course Policies. In this component, course policies should be stated, such as policies related to attendance, fees, materials, expectations such as field trips, practicum, projects.

COURSE OUTLINE

TIER I GENERAL EDUCATION COURSE

Course Title: _____

_____

Course Author(s): _____

_____

1. Catalog Description

   Title of course:

   Course number:

   Unit Value:

   Mode of instruction:

   Brief description of the Course:

   Articulation statement:

2. Overview and Rationale

Overview

Rationale

3.1 Course Content Goal

The intent of this course is to introduce the following course content to the learner.

(Please give a topical outline of the course in detail sufficient to give the reader a clear idea of the topics to be taken up. Use a consistent numbering system.)

3.1 Course Content Goal, continued

3.2 Criteria Related Goals: Criterion: Intradisciplinary

Criterion stated in goal form: To teach the intradisciplinary elements of the intradisciplinary family of courses.

| SUB-GOALS (What the course intends) to do. | OBJECTIVES (Objective: what the learner) should know, be able to do, experience, as a result of taking the course, i.e., knowledge, skills, values, ethics. | CONTENT (Refer to Course Outline) | INSTRUCTIONAL Procedures/Materials |
|---|---|---|---|
| | | | |

OTHER:

F-11

3.2 Criteria Related Goals: Criterion: Modes of Inquiry

Criterion stated in goal form: To teach the mode(s) of inquiry indigenous to the discipline.

| SUB-GOALS (What the course intends) to do. | OBJECTIVES (Objective: what the learner) should know, be able to do, experience, as a result of taking the course, i.e., knowledge, skills, values, ethics. | CONTENT (Refer to Course Outline) | INSTRUCTIONAL Procedures/Materials |
|---|---|---|---|
| | | | |

OTHER:

F-12

3.2 Criteria Related Goals: Criterion: Aesthetics of Knowledge

Criterion stated in goal form: To teach about the aesthetic qualities of the knowledge of the discipline.

| SUB-GOALS (What the course intends) to do. | OBJECTIVES (Objective: what the learner) should know, be able to do, experience, as a result of taking the course, i.e., knowledge, skills, values, ethics. | CONTENT (Refer to Course Outline) | INSTRUCTIONAL Procedures/Materials |
|---|---|---|---|
| | | | |

OTHER:

F-13

3.2 Criteria Related Goals: Criterion: Implications of Knowledge

Criterion stated in goal form: To explore these implications of the knowledge of the discipline: values, ethics and future.

| SUB-GOALS (What the course intends) to do. | OBJECTIVES (Objective: what the learner) should know, be able to do, experience, as a result of taking the course, i.e., knowledge, skills, values, ethics. | CONTENT (Refer to Course Outline) | INSTRUCTIONAL Procedures/Materials |
|---|---|---|---|
| | | | |

OTHER:

F-14

3.2 Criteria Related Goals: Criterion: Reading and Writing in the Learning Process

Criterion stated in goal form: To provide opportunities for learners to develop higher cognitive skills through reading and writing.

| SUB-GOALS (What the course intends) to do. | OBJECTIVES (Objective: what the learner) should know, be able to do, experience, as a result of taking the course, i.e., knowledge, skills, values, ethics. | CONTENT (Refer to Course Outline) | INSTRUCTIONAL Procedures/Materials |
|---|---|---|---|
| | | | |

OTHER:

F-15

3.2 Criteria Related Goals: Criterion: Critical and Effective Thinking

Criterion stated in goal form: To provide opportunities for learners to enhance their effectiveness in thinking.

| SUB-GOALS (What the course intends) to do. | OBJECTIVES (Objective: what the learner) should know, be able to do, experience, as a result of taking the course, i.e., knowledge, skills, values, ethics. | CONTENT (Refer to Course Outline) | INSTRUCTIONAL Procedures/Materials |
|---|---|---|---|
| | | | |

OTHER:

F-16

3.2 Criteria Related Goals: Criterion: Creativity

Criterion stated in goal form: To introduce to learners creative processes and examples of human creativity.

| SUB-GOALS (What the course intends) to do. | OBJECTIVES (Objective: what the learner) should know, be able to do, experience, as a result of taking the course, i.e., knowledge, skills, values, ethics. | CONTENT (Refer to Course Outline) | INSTRUCTIONAL Procedures/Materials |
|---|---|---|---|
| | | | |

OTHER:

3.2 Criteria Related Goals: Criterion: Pluralism

Criterion stated in goal form: To encourage the learner to consider the variety of perspectives, experiences and persuasions that have an impact on society.

| SUB-GOALS (What the course intends) to do. | OBJECTIVES (Objective: what the learner) should know, be able to do, experience, as a result of taking the course, i.e., knowledge, skills, values, ethics. | CONTENT (Refer to Course Outline) | INSTRUCTIONAL Procedures/Materials |
|---|---|---|---|
| | | | |

OTHER:

F-18



89

3.3 Other Goals and Objectives

| GOALS | OBJECTIVES |
| --- | --- |
| | |

4. Texts and Other Instructional Materials

Required Text(s):

Recommended Text(s):

Other instructional materials:

5. Evaluation Plan and Grading Plan

Evaluation Plan

Grading Plan

6. Course Policies

State course policies, such as attendance, fees, materials, expectations regarding such activities as field trips, practicum, projects, and the like.

## APPENDIX G

Roster of Members of the General Education Committee

## ROSTER OF MEMBERS OF THE GENERAL EDUCATION COMMITTEE

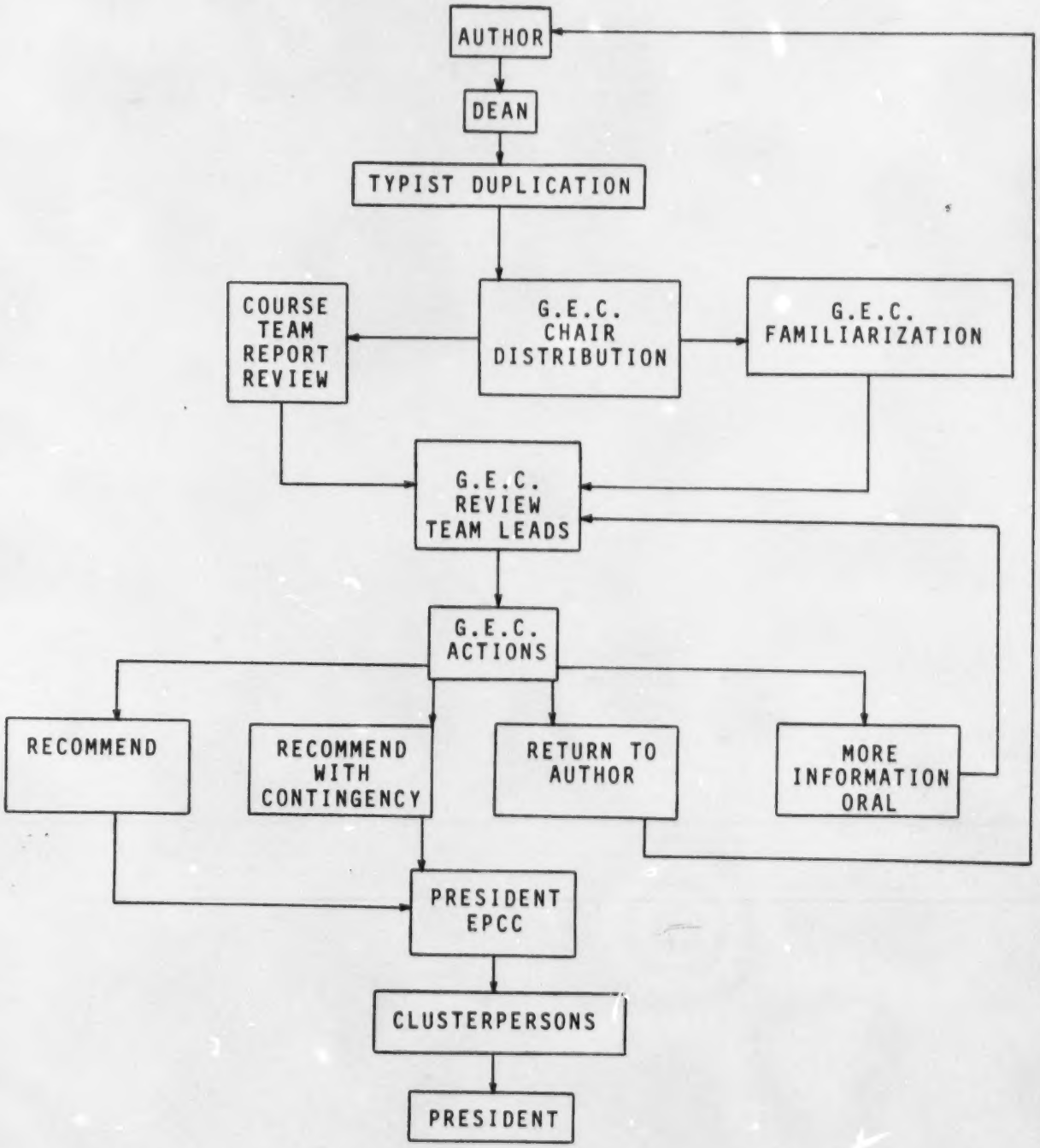
| | |
|---|---|
| Judy Bank | Faculty; Language Arts, Reading |
| Sandy Booher | Dean, Language Arts and Humanistic Studies |
| Gail Boucher | Faculty; Anthropology, Counselling |
| Chester Case | Committee Chairperson: Faculty; Social Science and Humanistic Studies |
| Stanley Chin | Dean, Physical and Biological Sciences |
| Vincent Custodio | Dean, Behavioral Sciences and Counselling |
| Jerry Davis | Faculty; Biological Sciences |
| Richard Livingston | Faculty; Journalism, Humanistic Studies |
| Robert Marshall | Faculty; Economics, Geography |
| Andres Ochoa | Faculty; Welding |
| Gilbert Rodriquez | Faculty; Mathematics |
| Carlton Williams | Dean, Social and Economic Sciences |
| Robert Zavala | Faculty; Child Development |

## APPENDIX H

Flow Chart of Review and Recommendation Process and

General Education Course Outline Review Report

FLOW CHART
TIER I COURSE REVIEW AND RECOMMENDATIONS




jes7182fc

GENERAL EDUCATION COURSE OUTLINE REVIEW REPORT

Title and number of course: _____

Area: _____ Area Dean: _____

_____ new or substantially revised course requiring clusterperson review

_____ revised course not requiring clusterperson review (Spring, 1982)

1. Committee Action:

_____ recommend for approval

_____ recommend for approval contingent upon the following (specify contingencies and due dates):

_____

_____

_____

_____

_____ return to author (explain):

_____

_____

_____

_____ _____

Date General Education Committee Chair, for the committee

2. Comments: _____

_____

_____

_____

Copies to: Author
Area Dean
President
General Education Committee
Karl Drexel
Charles Collins

jes7782geo

# APPENDIX I

Course Outlines:

Introduction to Astronomy

Geography

# COURSE OUTLINE
## TIER I GENERAL EDUCATION COURSE

**Course Title:** Physical Science 45TG
Introduction to Astronomy

**Course Author(s):** Kate Brooks

**1. Catalog Description**

**Title of course:** Introduction to Astronomy

**Course number:** Physical Science 45TG

**Unit Value:** 3 units

**Mode of Instruction:** 3 hour lecture, 1 hour auto-tutorial

**Brief description of the Course:**

A survey of current concepts of the universe and their historical evolution. Emphasis is placed on the process of inquiry by which the current scientific understanding has been achieved. The material is presented throughout with the aid of the planetarium sky and the auto-tutorial method of instruction. The course is intended for non-science majors.

**Articulation statement:**

## 2 Overview and Rationale

### Overview

Physical Science 45TG (Introduction to Astronomy) is a one semester course whose major goal is to convey to the learner a familiarity with the known contents, processes and evolution of the macroscopic physical universe and with the scientific method by which such knowledge has been uncovered. The content is organized in the traditional sequence beginning with the motions of the Earth and its closest neighbors and the naked-eye appearance of the universe as seen from Earth and moving outward in space to a consideration of planets and the solar system, stars, galaxies and finally the universe as a whole. Paralleling this spatial sequence, the course will also present an historical evolution moving forward in time from the geocentric view and mythological approaches of ancient cultures through the Copernican revolution up to the most current cosmological models of the universe. Key historical figures and the tools and methods by which they uncovered knowledge are stressed. Special attention is paid to the mode of scientific inquiry by which observation, classification and the perception of regularities have led to the discovery of scientific laws and the construction of models and theories.

The topics in the course are presented largely through lectures, media presentations and readings in a text and supplementary articles and books. The mode of inquiry is conveyed partly through lectures and reading but also by means of direct participation on the part of the learner. The planetarium facility is used heavily, not only to familiarize the learner with the appearance and motion of celestial objects in the night sky but also to allow participation in the scientific process of collection and interpretation of data. Further direct experience occurs through outdoor observing exercises requiring collection and interpretation of data.

While the main emphasis of the course is the current concepts and the process of inquiry by which they have evolved, attention is also given to constellations, older cultures' myths and beliefs about the sky, the value of the space effort to society and ethical and societal implications of astronomical knowledge. Philosophical considerations which arise from theories of the origin and evolution of the universe and the limitations of science in answering some of the ultimate questions are also explored. The learner is encouraged to think critically and with clarity through his or her own ideas, values and feelings about the universe, the place of mankind within it and its relevance to the meaning of our lives.

Rationale

Introduction to Astronomy is conceived and taught as a general education course and thus incorporates in a central way the major themes, concepts and mode of inquiry common to all disciplines within its intradisciplinary family - physics, chemistry and general physical science. It seeks to demonstrate that the science of astronomy is a continual search for order through discovering universal laws governing the interaction of matter and energy and their transformation. From the earliest perceptions of the regular cycles of the celestial objects to the modern perception of the law of the expanding universe, the course stresses the order that has been found to exist in the universe and expressed in scientific laws. It demonstrates how the macroscopic behavior and evolution of the largest units of matter in the universe are governed by the interaction of matter and energy and the action of the fundamental forces on elementary particles. The four major stages in the scientific process are emphasized with each topic studied, both through lecture and participatory modes of instruction. There is a continual attempt to foster an appreciation of both the beauty and order in the universe and also the painstaking work and creative accomplishments of those men and women of different cultures who have brought astronomical knowledge to mankind as a whole.

Reading and writing skills and the skill of effective thinking are enhanced respectively through reading and writing assignments and exercises which call for the manipulation and interpretation of data and tests which stress the understanding of concepts through their application to new situations.

3.1 Course Content Goal

The intent of this course is to introduce the following course content to the learner:

I. Orientation to the Sky

- A. The Importance of Careful Observation
- B. Regular Star Patterns: The Constellations
- C. Classifying the Constellations:
  1. Circumpolar
  2. Equatorial
  3. Zodiacal
- D. Regular Diurnal Motion of the Celestial Sphere
- E. Models which explain the diurnal motion:
  1. the ancient geocentric view
  2. the Copernican heliocentric model
- F. Methods of measuring position on the Celestial Sphere:
  1. Horizon coordinate system
  2. Equatorial coordinate system
- G. The value and meaning in mythology of ancient cultures about the sky

II. The Observation and Interpretation of Regular Cycles of the Earth, Sun and Moon

- A. Appreciation of the order which the regular, predictable cycles of celestial objects have brought to life on Earth.
- B. How these cycles are observed from the Earth and explained in both the geocentric and heliocentric models.
  1. day and night and the rotation of the Earth
  2. the motion of the sun through the zodiac and the orbit of the Earth
  3. the changing daily path of the sun in Earth's sky and the Earth's axial tilt - solar energy as a societal issue.
  4. the phases of the moon and its motion through the zodiac.
  5. the cycle of eclipses.
  6. the precessional cycle of the Earth.
- C. The possible effects of these cycles on human beings and other living organisms on Earth.
- D. The accomplishments of ancient civilizations in understanding and measuring these cycles.
  1. Mayans
  2. Egyptians
  3. Native Americans
  4. Celts

3.1 Course Content Goal, continued

III. The Birth of Modern Astronomy: Understanding the Mechanics of the Solar System and the Development of the Telescope.

A. Observed appearance and regular motions of the planets
B. Historical development from geocentric to heliocentric theory
   1. Ptolemy and the concept of epicycles
   2. Copernicus - the greater beauty and simplicity of the heliocentric theory
   3. Galileo
   4. Tychc Brahe - the painstaking naked-eye observer
   5. Kepler and his three laws of planetary motion
   6. Isaac Newton and the law of universal gravitation
C. Clear-cut demonstration of the four stages in the scientific process in the work of Brahe, Kepler and Newton.
D. The development of the refracting and reflecting telescopes by Galileo and Newton, respectively.
E. Appreciation of the creativity of those who advanced new and revolutionary models.

IV. The Solar System and the Question of Life on Other Worlds.

A. The physical characteristics of planets, satellites, comets and meteoroids.
B. Classification of terrestrial vs. Jovian planets.
C. Conditions for the development or continuance of life on a planet and for the presence of atmospheres
D. Models of the formation of the solar system which explain the regularities of planetary motion and physical characteristics.
E. The value to society of studying the other planets.
F. Societal decisions regarding the uses of space.
   1. Building space colonies
   2. Sending further space missions, manned and unmanned, to study planets.
   3. Terraforming planets to make them habitable.
   4. Searching for extraterrestrial life and intelligence.

3.1 Course Content Goal, continued

V. The Sun and Stars

A. The nature and behavior of light.
B. Analyzing light with spectroscopes.
C. What astronomers learn about sources of light from studying their spectra.
D. The spectra of the sun and stars.
E. The surface appearance of the sun.
   1. Sunspots and their possible effect on Earth.
   2. Granulation and Prominences
   3. Solar radiation and Solar Wind
F. Appreciation of the importance of the sun to Earth life.
G. The current model of how the sun produces energy.
H. Classifying stars, measuring their distance.
I. The relationship of stellar luminosity and surface temperature and its interpretation.
J. The life cycle of the sun and stars - the current model of stellar evolution.

VI. Galaxies and the Universe

A. The nature of the Milky Way
   1. Ancient myths
   2. Sun-centered models of the early 20th century
   3. Discovery of the true shape and dimensions of the Milky Way Galaxy and the location of the solar system within it.
B. Classification, regularity patterns and evolutionary models of galaxies
C. The observed redshift of galaxies
D. Hubble's law revealing the expansion of the universe
E. Cosmological models
F. Metaphysical explanations of creation
G. The work of the modern astronomer
H. Accomplishments of women astronomers
I. The limitations of science in answering ultimate questions of the origin of the universe

3.2 **Criteria Related Goals: Criterion:** Intradisciplinary

**Criterion stated in goal form:** To teach the intradisciplinary elements of the intradisciplinary family of courses.

| SUB-GOALS (What the course intends) to do. | OBJECTIVES (Objective: what the learner) should know, be able to do, experience, as a result of taking the course, i.e., knowledge, skills, values, ethics. | CONTENT (Refer to Course Outline) | INSTRUCTIONAL Procedures/Materials |
|---|---|---|---|
| 1. To demonstrate the concept of order in the physical arrangement and the regularity of motion of all macroscopic objects in the universe. | 1. To describe or identify the order expressed in:<br>a. the regular cycles of the Earth, sun and moon.<br>b. the regularities of planetary motion and physical characteristics.<br>c. the luminosity-temperature relationship for stars.<br>d. the physical appearance of galaxies.<br>e. the law of the expanding universe. | I. D,E<br>II. A,B<br>III. A<br>IV. A,B<br>V. I<br>VI. B,C,D | Lecture with slides, films, demonstration with planetarium instrument.<br>Reading.<br>Construction of tables and graphing results.<br>A-T Units |
| 2. To demonstrate that the search for the cause of astronomical phenomena is the fundamental goal of astronomers. | 2. To explain <u>why</u> the above phenomena are thought to occur. | I. E IV. D<br>II. B V. G,J<br>III. B,6<br>VI. B,E,F | Lectures, reading. |
| 3. To show that the present understanding represents the best guess or "model" which can explain observed regularity patterns and predict future behavior. | 3. To discuss areas of theory which are still extremely uncertain. | IV. D V. G<br>VI. E V. J | Lecture |
| 4. To foster an understanding of the principle that physical laws apply universally to objects in the cosmos. | 4. To appreciate that the power of scientific laws lies in their universality and predictability. | III. B,5<br>V. J<br>VI. D | Lecture, reading. |

**OTHER:**

I-7

3.2 Criteria Related Goals: Criterion: Intradisciplinary

Criterion stated in goal form: To teach the intradisciplinary elements of the intradisciplinary family of courses.

| SUB-GOALS (What the course intends) to do. | OBJECTIVES (Objective: what the learner) should know, be able to do, experience, as a result of taking the course, i.e., knowledge, skills, values, ethics. | CONTENT (Refer to Course Outline) | INSTRUCTIONAL Procedures/Materials |
|---|---|---|---|
| 5. To demonstrate that the universe and the large-scale units of matter within it are (or have been) structured and evolve by the action of fundamental forces on elementary particles. | 5. To describe how gravity and the energy of objects govern motions in the solar system and how gravity and the nuclear force, together with the laws of gases, determine the structure and the life cycle of stars, galaxies and the universe. | III. A,B<br>V. G,J<br>VI. E | Lecture, reading, slides, A-T units |
| 6. To demonstrate how the principles of conservation of mass/energy, stability v. disorder, kinetics, equilibrium states and the laws of thermodynamics relate to the macroscopic universe and determine how it volves. | 6. To describe how motions in the solar system, galaxy and universe (or the continued existence of a star) are due to an equilibrium between the momentum of object (or its internal pressure) and forces acting on it. | IV. B<br>V. G<br>VI. E | |
| | 7. To explain why the universe may die a "heat" death. | VI. E | Lecture, reading |
| | 8. To describe how, in transformations of astronomical objects, energy is conserved but disorder increases. | IV. B<br>V. G<br>J | Lecture |

OTHER:

3.2 **Criteria Related Goals: Criterion:** Modes of inquiry

**Criterion stated in goal form:** To teach the mode(s) of inquiry indigenous to the discipline.

| SUB-GOALS (What the course intends) to do. | OBJECTIVES (Objective: what the learner) should know, be able to do, experience, as a result of taking the course, i.e., knowledge, skills, values, ethics. | CONTENT (Refer to Course Outline) | INSTRUCTIONAL Procedures/Materials |
|---|---|---|---|
| 1. To develop an understanding of the 4 stages in the scientific process:<br>a. observation<br>b. classification<br>c. regularity formulation<br>d. interpretation or model construction. | 1. To explain any one of the four stages in the process of scientific inquiry and identify which stage is being done if given an example or asked to perform a task. | I. A,B,C,D,E,F<br>II. B 1-4<br>III. A,C<br>IV. A,B,D,<br>V. G-J .<br>VI. A,3, B,C, D,E | Lectures -<br>Record data regarding<br>a. daily path of sun<br>b. the position, surface features and shape of the moon<br>c. positions of constellations or planets either in the planetarium or real sky.<br>Interpret such data. |
| 2. To develop an understanding of the tools astronomers use for stage 1 observation. | 2. To recognize, identify or diagram basic instruments and explain how and why they are used. | III. D<br>V. A-D<br>VI. C | |
| 3. To demonstrate what and how astronomers learn from spectra. | | | Lecture<br>Demonstrations of optics, light spectra<br>Slides |

**OTHER:**

I-9

3.2 Criteria Related Goals: Criterion: Aesthetics of Knowledge

Criterion stated in goal form: To teach about the aesthetic qualities of the knowledge of the discipline.

| SUB-GOALS (What the course intends) to do. | OBJECTIVES (Objective: what the learner) should know, be able to do, experience, as a result of taking the course, i.e., knowledge, skills, values, ethics. | CONTENT (Refer to Course Outline) | INSTRUCTIONAL Procedures/Materials |
|---|---|---|---|
| 1. To foster an appreciation for the beauty, vastness and order in the universe. | 1. To express in writing or orally a sense of the beauty and vastness of the universe and an understanding of the universe, the search for simple explanations. | I. B<br>II. B | Lectures, discussion<br>Slides<br>Films<br>Planetarium Sky |
| 2. To foster an appreciation of the fact that astronomers search for the model or explanation which has the greatest simplicity or beauty. | 2. To express in writing or orally feelings regarding the astronomical view of man's origins and reactions to the kind of work astronomers do. | III. B,E<br>IV. E<br>V. C<br>VI. C | Lectures |
| 3. To enhance the sense of how mankind has evolved out of the cosmos. | 3. To describe myths about the sky. Compare those of different cultures and express views regarding their value. | II. D<br>III. B-E | Slides, tapes - Music |
| 4. To foster an appreciation for the intensity of concentrated, painstaking effort required to uncover astronomical knowledge. | | I. G<br>VI. A1 | Lectures, reading<br>Slides |
| 5. To enhance appreciation for the value of myths about the sky. | | | Tapes - Music |

OTHER:

I-10

3.2 Criteria Related Goals: Criterion: Implications of Knowledge

Criterion stated in goal form: To explore these implications of the knowledge of the discipline: values, ethics and future.

| SUB-GOALS (What the course intends) to do. | OBJECTIVES (Objective: what the learner) should know, be able to do, experience, as a result of taking the course, i.e., knowledge, skills, values, ethics. | CONTENT (Refer to Course Outline) | INSTRUCTIONAL Procedures/Materials |
|---|---|---|---|
| 1. To introduce the idea that astronomical cycles might affect people and other life.<br>2. To explore ethical issues involved in the uses of space, in gathering knowledge about the planets, and in searching for extra-terrestrial life.<br>3. To explore issues involving in deciding how and believes creation happened and mankind evolved on Earth. | 1. To express views and analyze values regarding:<br>a. how astronomical cycles might affect us<br>b. uses of space<br>c. exploring and terra forming planets<br>d. building space colonies<br>e. how creation happened<br>f. how mankind evolved on Earth | IV. E,F<br><br><br><br><br>VI. E,F | Lecture<br>Films<br>Discussion |

OTHER:

I-11

3.2 Criteria Related Goals: Criterion: Reading and Writing in the Learning Process

Criterion stated in goal form: To provide opportunities for learners to develop higher cognitive skills through reading and writing.

| SUB-GOALS (What the course intends) to do. | OBJECTIVES (Objective: what the learner) should know, be able to do, experience, as a result of taking the course, i.e., knowledge, skills, values, ethics. | CONTENT (Refer to Course Outline) | INSTRUCTIONAL Procedures/Materials |
|---|---|---|---|
| 1. To require reading in a descriptive level text and supplementary books and articles.<br><br>2. To require homework assignments, observing exercises and essay questions which call for writing skill. | 1. Demonstrate comprehension of text and other readings by answering questions requiring understanding of concepts.<br><br>2. To demonstrate skill in writing clearly interpretations of data collected, descriptions of the physical universe concepts as to how the universe operates and has evolved, and values and feelings regarding ethical issues related to astronomy. | All parts.<br><br>All parts but especially I.G<br>II. D<br>IV. E.F.<br>V. J | Tests -<br>Written homework assignments<br><br>Written conclusions on observing assignments |

OTHER:

3.2 Criteria Related Goals: Criterion: Critical and Effective Thinking

Criterion stated in goal form: To provide opportunities for learners to enhance their effectiveness in thinking.

| SUB-GOALS (What the course intends) to do. | OBJECTIVES (Objective: what the learner) should know, be able to do, experience, as a result of taking the course, i.e., knowledge, skills, values, ethics. | CONTENT (Refer to Course Outline) | INSTRUCTIONAL Procedures/Materials |
|---|---|---|---|
| 1. To enhance skills in effective, logical thinking by giving much practice in drawing correct conclusions from observed data and patterns. | 1. To draw effective conclusions from astronomical data.<br>2. To demonstrate understanding of concepts by applying them correctly to new situations. | All parts | Class discussion Verbal and written responses to classroom questioning by instructor. |

OTHER:

3.2 Criteria Related Goals: Criterion: Creativity

Criterion stated in goal form: To introduce to learners creative processes and examples of human creativity.

| SUB-GOALS (What the course intends) to do. | OBJECTIVES (Objective: what the learner) should know, be able to do, experience, as a result of taking the course, i.e., knowledge, skills, values, ethics. | CONTENT (Refer to Course Outline) | INSTRUCTIONAL Procedures/Materials |
|---|---|---|---|
| 1. To foster an appreciation of the creativity of astronomers who have led us to new views of the universe. | 1. To express an understanding of the creative aspect of model construction and the divising of theories which explain observed astronomical phenomena. | II. D<br>III. B,C,D,E<br>IV. D<br>V. G.J<br>VI. E,G | Test and Homework Questions<br><br>Lecture |

OTHER:

3.2 Criteria Related Goals: Criterion: Pluralism

Criterion stated in goal form: To encourage the learner to consider the variety of perspectives, experiences and persuasions that have an impact on society.

| SUB-GOALS (What the course intends) to do. | OBJECTIVES (Objective: what the learner) should know, be able to do, experience, as a result of taking the course, i.e., knowledge, skills, values, ethics. | CONTENT (Refer to Course Outline) | INSTRUCTIONAL Procedures/Materials |
|---|---|---|---|
| 1. To foster an:<br>a. appreciation of the astronomical accomplishments of ancient cultures<br>b. mythological approaches of ancient cultures<br>c. metaphysical explanation of the origin of the universe<br>d. the accomplishments of women astronomers | 1. To demonstrate an understanding of and an appreciation for:<br>a.<br>b.<br>c.<br>d.<br>from 1st solumn | I. G<br>II. D<br>VI. A,1<br>VI. F,H,I | Lecture<br><br>Planetarium shows and presentations |

OTHER:

5. Evaluation Plan and Grading Plan

Evaluation Plan

Students will be evaluated on their performance on

| | |
|---|---|
| tests and examinations | 50% |
| auto-tutorial units | 25% |
| homework assignments plus observing exercises | 20% |
| attendance | 5% |

Grading Plan

Points are accumulated and grades assigned on the basis of the following scheme:

100 - 90% = A
80 - 89% = B
67 - 79% = C
50 - 66% = D

6. Course Policies

State course policies, such as attendance, fees, materials, expectations regarding such activities as field trips, practicum, projects, and the like.

Attendance is required and earns 1/2 point per 50-minute class attended (maximum of 25 points for perfect attendance).

Tests may be made up only if instructor is informed on the day test is missed of a valid reason for missing the test otherwise a make-up for fewer points is assigned.

A field trip is normally scheduled to the Chabot Observatory in Oakland.

COURSE OUTLINE
TIER I GENERAL EDUCATION COURSE

**Course Title:** Geography

**Course Author(s):** Bob H. Marshall

1. **Catalog Description**

**Title of course:** Geography

**Course number:** 21

**Unit Value:** 3

**Mode of instruction:** Lecture and Field Practicum

**Brief description of the Course:**

An examination of factors that determine environment and consideration of human relations with that natural environment. The rock cycle, mountain building and destruction, climate, soil and vegetation will be covered. Hunting and gathering, agrarian, and industrialized societies relation to, and impact upon the land will be included. Thus the course includes concepts found in both physical geography (land forms and locations impact on climate and thus life) and concepts found in cultural and economic geography. Six field trips to East Contra Costa County will be an integral part of the course.

**Articulation statement:**

Transfers to U.C., C.S.U.C., and private colleges. Fulfills General Education requirements at L.M.C.

2. Overview and Rationale

Overview

Geography will cover:

- o The materials that make up the earth and the forces that build it up and tear it down.
- o The factors that determine climate, soil, vegetation, and animal life.
- o The land's impact on humans and human's impact upon the land.

Thus the course will deal with the most basic concepts included in physical, cultural and economic geography.

Six field trips to East Contra Costa County will be an integral part of the course. While in the field students will have opportunities to make observations and inferences, come to understand and appreciate their immediate environment.

Rationale

Geography is usually divided into three introductory courses: physical, cultural, and economic. Since this is a general education course concerned with an overview, the course will draw from all three subdisciplines. Geography is, of necessity, intradisciplinary and this course will utilize material from history, economics, political science, anthropology, as well as from chemistry, physics, and biology.

Geography usually utilizes the lecture and reading modes to communicate a body of knowledge, almost encyclopedic in nature, concerning the entire world. This course, in seeking to achieve the general education objectives, will focus on the geography of East Contra Costa County and rely heavily on six field trips to the area in the hopes that the student will:

1. Become actively involved in the educational process: exploring the land using topograhical maps, making observations, drawing inferences, and utilizing original documents to reconstruct the past.

Rationale (cont.)

2. Come to understand, experience, and appreciate their immediate natural environment.

3. Be exposed to the basic geographical concepts that shape any (including the local) and all environments in spite of the significant differences in their appearances.

Thus the course will be student oriented rather than discipline oriented, it will be as concerned with process as it is with content thereby qualifying as a general education course. Yet at the same time the fundamental concepts of the discipline will not be shortchanged since they are essential to gaining an understanding of the local environment. Even though other regions will only be alluded to for comparison, the student should be able to understand those diverse environments with little further study because the same fundamental geographic concepts apply.

3.1 Course Content Goal

The intent of this course is to introduce the following course content to the learner:

I. Understanding the Land

A. Geologic Time

Given the age of the earth (over four billon years) and given that the changes that go on today have gone on throughout almost all that time (uniformism) the earth has been, and it is continuing to be, markedly transformed although usually at almost imperceptible rates. Geologic laws such as superposition and original horizontality enable a person to comprehend these transformations and deduce the geologic history of a particular site.

B. The Rock Cycle

Any rock can weather and decompose becoming fragments of various sizes or ions in solution. These fragments or solutions can, in turn, become sedimentary rocks or, under more heat and pressure, metamorphic rocks or, under still more heat and pressure, melt to magma, or pass gradually through all these states. Molten magma can cool into igneous rock (rocks formed from a volcano for example). In turn any rock can weather and decompose...thus the rock cycle. The nature of a particular rock is determined by the processes it has been through and the chemicals of which it is composed. These processes and their outcome are, on the one hand, extremely simple and, on the other, extremely diverse and complex.

C. Mountain Building

The surface of the earth is composed of rigid plates that "ride" on a molten mass beneath. These plates move and push against one another causing the rigid earth to be bowed, crushed, piled high and pulled apart creating the irregularities in what would otherwise be a smooth surface. Plates that have been locked in place until sufficient pressure builds up to spring them loose cause earthquakes. The plate movement cause the heat, pressure, and fissures which, in turn, cause volcanoes.

3.1 Course Content Goal, continued

D. Mountain Destruction

Weathering (rock disintegration and decomposition), erosion (transportation of rock debris by water, wind, and ice) and mass wasting (soil creek, slumps, landslides caused by gravity) would reduce all mountains to an almost flat featureless plain in less than twenty million years if mountain building ceased. Topographic maps, once they can be read, explain the contours caused by the erosion of streams and the mass wasting of landslides.

E. Geology Field Trip to Black Diamond

To observe and make inferences about rocks, rock formations, stream beds, and hills, and to practice reading topographical maps.

II. Understanding the Impact of Location (Latitude, Aspect, Altitude, and Proximity to Influential Land and Water Masses and Resources.)

A. Latitude, Aspect, and Altitudes Effect on Light and Temperature

Black Diamond's latitude ($38^{o}$ oo') and its effect on seasons, daylight, and temperature due to $23\frac{1}{2}^{o}$ tilt of earth's axis. Aspect's (direction of exposure) impact on light and temperature. Altitude's impact on temperature due to adiabatic cooling.

B. Causes and Consequences of Wind, Evaporation, Condensation and Percipitation

Heat's role in evaporation and evaporation's impact on sensible heat. Unequal distribution of hear as the cause of wind. An examination of wind patterns. Winds' role in redistributing heat and moisture. Causes of condensation and precipitation. Heat and moisture, controlled by the factors discussed above, determine the climate. Consideration of the specific factors that create a Mediterranean climate in East Contra Costa County.

3.1 Course Content Goal, continued

C. Soil

The role of each of the five components of a soil The causes and significance of a soil's layers or horizons. The roles climate, time, slope, and the parent rock play in determining a soil. Adescription of, and an explanation for, the specific soils found in Black Diamond.

D. Vegetation

The roles climate and soil play in determining vegetation. A description of the three types of vegetation (grassland, oak woodland, and chaparral) found in Black Diamond and an explanation as to why each is found where it 's found, and as to why so many vegetation types are found nowhere within the park.

E. Ecosystem

Putting it all together to see how the particular plants and annuals fit into their Black Diamond environments (their niche in a habitat). Tolerance and adaptation with special focus on fire's influence.

F. Geography Field Trip to Black Diamond

Observe soil horizons to identify soil types and posit factors contributing to their development. Observe the three plant communities, identify some of the common plants found in each and infer why each community is so situated. Observe and discuss micro environments found within a large community and ecotones found where two distinct communities merge.

G. Field Trip to Oakland Museum

To observe the plant communities found within California, especially the three found in Black Diamond. To reinforce the importance of location in determining community. To observe the animals most commonly found in each of the communities and to grasp why the animals have a niche in their habitat.

3.1 Course Content Goal, continued

III. History of East Contra Costa County

A. Native Americans and Spanish

The culture of the local California Indians and the importance of particular plants and animals in shaping that culture. The rationale, feasibility, and impact of the Spanish missions.

B. Early Anglo Settlers and the Subsequent Coal Miners (1830-1900)

Arrival of first Anglos (John Marsh, the settlement of Pittsburg and Antioch). The discovery and development of the coal fields and the resultant growth in population and production.

C. Historical Field Trip to Black Diamond

To visit the mines, the cemetary, the archaeological digs, and the introduced plants in what was Sommersville.

D. Field Trip to Bancroft Library

To read from different original sources about life in the coal mining communities in and around Black Diamond. Students will share what they read with the class so they can collectively recreate a picture of life in the 19th Century mining town.

E. In the Twentieth Century

The causes and consequences of changing land-use patterns, changing lifestyles, and changing political organization. Prospects for the future. The desirability of likely changes.

F. Field Trip Throughout East County

Historical sites, industrialized society's impact on the landscape, recent changes that point out future prospects.

3.2 **Criteria Related Goals: Criterion:** intradisciplinary

**Criterion stated in goal form:** To teach the intradisciplinary elements of the intradisciplinary family of courses.

| SUB-GOALS (What the course intends) to do. | OBJECTIVES (Objective: what the learner) should know, be able to do, experience, as a result of taking the course, i.e., knowledge, skills, values, ethics. | CONTENT (Refer to Course Outline) | INSTRUCTIONAL Procedures/Materials |
|---|---|---|---|
| 1. To utilize concepts and data from history, economics, and political science, as well as from geography, to analyze and interpret societal relationships. | 1.a. To be able to explain for each culture that occupied the area how the political relationships were influenced by the economic conditions and how the economic conditions were influenced by the geographic conditions. | 1.a. III throughout | 1.a. Lecture, field trips, discussion, readings, movie: The Beautiful Tree -- Chishkale |
| | 1.b. To be able to offer historical examples of many of the concepts discussed from the other social sciences. | 1.b. III throughout | 1.b. Lecture, field trips, discussion, readings |

**OTHER:**

C-2-1

3.2 **Criteria Related Goals: Criterion:** Modes of inquiry

**Criterion stated in goal form:** To teach the mode(s) of inquiry indigenous to the discipline.

| SUB-GOALS (What the course intends) to do. | OBJECTIVES (Objective: what the learner) should know, be able to do, experience, as a result of taking the course, i.e., knowledge, skills, values, ethics. | CONTENT (Refer to Course Outline) | INSTRUCTIONAL Procedures/Materials |
|---|---|---|---|
| 1. Observation, reading, organization, and interpretation of data on both societal relationships and natural phenomena. | 1. Acquire and interpret data concerning both societal relationships and natural phenomena | 1. I E, II F, III C, III D, III E, III F | 1. Observation and inference on field trips and, to a lesser degree, reading and lecture and interpretation in classroom setting. |
| 2. Posit theories to explain both societal relationships and natural phenomena. | 2. Be able to explain crucial theories that explain societal relationships and natural phenomena. | 2. In all units | 2. Lecture on relevant and indispensible theories, small group discussions on field trips to try and deduce applications and subtle variations. |
| 3. Use further data to substantiate or modify theories or to predict outcomes. | 3. Gather future relevant data and show its bearing on theories. | 3. I E, II F, III C, III D, III E, III F | 3. Reservation and small group discussions. |
| 4. Point out to students that the theories in the social sciences from tne phenomenon in | 4. State real world phenomenon that serves as basis/example of numberous social science theories. | 4. I E, II F, III C | 4. Field trips, discussion. |

**OTHER:**

3.2 **Criteria Related Goals: Criterion:** Modes of inquiry

**Criterion stated in goal form:** To teach the mode(s) of inquiry indigenous to the discipline.

| SUB-GOALS (What the course intends) to do. | OBJECTIVES (Objective: what the learner) should know, be able to do, experience, as a result of taking the course, i.e., knowledge, skills, values, ethics. | CONTENT (Refer to Course Outline) | INSTRUCTIONAL Procedures/Materials |
|---|---|---|---|
| 4. (cont.)<br><br>the real world rather than in the test tube and therefore they seldom can be verified in a controlled experiment. | | | |

**OTHER:**

3.2 Criteria Related Goals: Criterion: Aesthetics of Knowledge

Criterion stated in goal form: To teach about the aesthetic qualities of the knowledge of the discipline.

| SUB-GOALS (What the course intends) to do. | OBJECTIVES (Objective: what the learner) should know, be able to do, experience, as a result of taking the course, i.e., knowledge, skills, values, ethics. | CONTENT (Refer to Course Outline) | INSTRUCTIONAL Procedures/Materials |
|---|---|---|---|
| 1. To convey the simplicity, yet subtlety, the ingeunity yet inadequacy of some of the existing theories that explain the order and diversity of the real world. | 1. Experience the theories and the reality of the natural world. | 1. I all, II, III | 1. Lecture, field trips, discussion, readings |
| 2. Explore the significance and insignificance, the potential and the limits of human activity in the area. | 2. Experience accomplishments, struggles, and limitations of humankind in this area. | 2. III all | 2. Lecture, field trips, discussion, readings, movie: The Beautiful Tree -- Chishkale |
| 3. Make students aware that the social sciences try to shed light on interaction. | 3. Recount how concepts from social sciences help to | 3. III all | 3. Lecture, field trips, discussion, readings |

OTHER:

3.2 Criteria Related Goals: Criterion: Implications of Knowledge

Criterion stated in goal form: To explore these implications of the knowledge of the discipline: values, ethics and future.

| SUB-GOALS (What the course intends) to do. | OBJECTIVES (Objective: what the learner) should know, be able to do, experience, as a result of taking the course, i.e., knowledge, skills, values, ethics. | CONTENT (Refer to Course Outline) | INSTRUCTIONAL Procedures/Materials |
|---|---|---|---|
| 1. Compare the impact of hunting and gathering, agrarian, and industrialized societies on the land. | 1. Define and contrast the impact various people have had on East County. | 1. III all | Discussion generally during field trips and ungrafed writing based on material introduced in lectures and readings. |
| 2. Consider the advantages and drawbacks of the different cultures that have inhabited the area. | 2. List the characteristics and personally assess the merits of each of the societies that have inhabited the area. | 2. III all | |
| 3. Speculate on future development in the area and evaluate its merits. | 3. List possible events/scenarios in East County development and evaluate the pros and cons of the possible alternatives. | 3. III E, III F | |

OTHER:

3.2 Criteria Related Goals: Criterion: Reading and Writing in the Learning Process

Criterion stated in goal form: To provide opportunities for learners to develop higher cognitive skills through reading and writing.

| SUB-GOALS (What the course intends) to do. | OBJECTIVES (Objective: what the learner) should know, be able to do, experience, as a result of taking the course, i.e., knowledge, skills, values, ethics. | CONTENT (Refer to Course Outline) | INSTRUCTIONAL Procedures/Materials |
|---|---|---|---|
| 1. Promote writing skills. | 1.a. Write for 10-20 minutes six or eight times on something triggered by a reading, lecture or field trip (share but ungraded). | 1.a. In all units | 1.a. Write on reading, lecture, field trips |
| | 1.b. Write essays on each of three unit exams. | 1.b. In all units | 1.b. Write on unit exam |
| 2. Promote reading skills. | 2. Demonstrate comprehension of readings by answering questions requiring understanding of concepts | 2. In all units | 2. Reading numerous articles and other handouts. |
| 3. Assess reading and writing skills and make referrals to tutors as appropriate. | 3. Individual students will undertake skills development in reading and writing lab as appropriate. | 3. 1 A | 3. Reading and writing assessment. |

OTHER:

3.2 Criteria Related Goals: Criterion: Critical and Effective Thinking

Criterion stated in goal form: To provide opportunities for learners to enhance their effectiveness in thinking.

| SUB-GOALS (What the course intends) to do. | OBJECTIVES (Objective: what the learner) should know, be able to do, experience, as a result of taking the course, i.e., knowledge, skills, values, ethics. | CONTENT (Refer to Course Outline) | INSTRUCTIONAL Procedures/Materials |
|---|---|---|---|
| 1. Provide concepts and data necessary in lectures and readings so students can explain field observations | 1. Identify processes and concepts that explain/account for phenomena observed in the field. | 1. 12 classroom sessions are tailored to enable students to think effectively on their own and in small groups on the field trips. | 1. Lectures, field trips, discussions, readings |
| 2. Develop the student's ability to make observations and draw inferences. | 2. Observe and draw inferences from observations. | 2. I E, II F, III C, III F | 2. Field trips, discussion |

OTHER:

3.2 Criteria Related Goals: Criterion: Creativity

Criterion stated in goal form: To introduce to learners creative processes and examples of human creativity.

| SUB-GOALS (What the course intends) to do. | OBJECTIVES (Objective: what the learner) should know, be able to do, experience, as a result of taking the course, i.e., knowledge, skills, values, ethics. | CONTENT (Refer to Course Outline) | INSTRUCTIONAL Procedures/Materials |
|---|---|---|---|
| 1. Provide the opportunity for students to understand and sense the environment they probably took for granted or never noticed. | 1. Experience East County intellectually and sensually. | 1. Throughout course. | 1. Lectures, field trips, discussions, readings |
| 2. Encourage creative activity in the students. | 2.a. Select laws or principles that may account for observed phenomena. | 2.a. I E, II F, III C, III D | 2.a. Observation and discussion |
| | 2.b. Recreate history. | 2.b. III D | 2.b. Reading and Discussion |
| | 2.c. Forecast possible futures for East County | 2.c. III E, III F | 2.c. Observation and Discussion |
| 3. Introduce examples of creative thinking by geologists to explain events which we are separated from by space and time. | 3. Recount laws deduced by geologist to explain phenomena. | 3. I all | 3. Lectures, field trips, discussions, readings |

OTHER:

3.2 Criteria Related Goals: Criterion: Pluralism

Criterion stated in goal form: To encourage the learner to consider the variety of perspectives, experiences and persuasions that have an impact on society.

| SUB-GOALS (What the course intends) to do. | OBJECTIVES (Objective: what the learner) should know, be able to do, experience, as a result of taking the course, i.e., knowledge, skills, values, ethics. | CONTENT (Refer to Course Outline) | INSTRUCTIONAL Procedures/Materials |
|---|---|---|---|
| 1. Compare the different cultures that have lived near Black Diamond. | 1. Be able to list characteristics and differences of the groups that have lived in East Contra Costa County. | 1. III all | 1. Lecture, field trips, discussions, readings, movie |
| 2. Present different views of the different cultures that have lived near Black Diamond and consider what factors account for the discrepencies. | 2. Recount inconsistencies in the views of the different cultures that lived in East Contra Costa County. | 2. III all | 2. Lecture, field trips, discussions, readings, movie. |

OTHER:

4. Texts and Other Instructional Materials

Required Text(s):

None

Recommended Text(s):

None

Other Instructional Materials:

Reprints and considerable written material prepared specifically for the course.

5. Evaluation Plan and Grading Plan

Evaluation Plan

There will be three unit exams consisting of multiple choice and essay questions based on the lectures, readings, field trips, lab exercises, and the ungraded writing assignments. There will also be three lab exercises completed during or after field trips. There will not be a cumulative final instead the unit 3 exam will be offered at that time.

Grading Plan

The grade will be based primarily on performance of the three unit exams although participation (attendance, completion of the lab exercises and the ungraded written assignments, and contribution to discussion and small group activities will contribute about one-fourth of the grade).

6. Course Policies

State course policies, such as attendance, fees, materials, expectations regarding such activities as field trips, practicum, projects, and the like.

The course will be offerred in three-hour time blocks to facilitate the field trips. The field practicum portion of the course (which the catalog indicates is to be announced) will occur the six days of field trips so the sessions those days will last four hours. The field trips connected with night classes will be taken on Saturdays.

If a student is unable to attend their class session in a given week they may attend any of the other sessions offerred.

Tests can be made up for full credit only if the instructor or switchboard operator is notified and a valid reason given for being absent before the hour of the scheduled exam. In other cases those taking a makeup will be penalized points.

APPENDIX J

Minutes and Report from the General Education Committee,

May 4-5, 1982 and May 19, 1982

May 12, 1982

To: Los Medanos College Clusterpersons

From: Chester Case, Chair, General Education Committee

Subject: Minutes and Report, General Education Committee

The General Education Committee met on Tuesday and Wednesday, May 4-5, to review course outlines of courses proposed for designation as General Education courses for Tier I. This is a report on the actions of the Committee.

1. Meetings were held as follows:

   1.1 Tuesday, May 4, 1982, St. Mary's College, 8:30 a.m. - 4:30 p.m. Present were: Booher, Case, Boucher, Bank, Davi, Custodio, Chin, Marshall, Ochoa, Rodriquez, Zavala, Williams.

   1.2 Wednesday, May 5, 1982, Los Medanos College, Room 409, 9:00 a.m. - 12.45 p.m. Present were: Bank, Booher, Case, Chin, Custodio, Davi, Marshall, Ochoa, Rodriquez, Williams, Zavala

   1.3 At all times a quorum was present.

2. Procedure

   Procedure set out in the position paper was implemented. The Committee first reviewed the task at hand, which was to review the submitted course outlines (25) for satisfaction of the Tier I general education criteria. A sequence of activities was decided upon. Course outlines were taken one at a time for review. Course teams (see Attachment A) led discussion on a course outline and its satisfaction of the criteria. Course outlines were assigned to categories, depending upon the degree to which criteria were satisfied. Conditions specified for further development and/or revision were discussed and noted for course outlines. The Committee voted on recommendations, and discussed next steps for the project.

3. Committee Actions

   The Committee acted on the following motions:

   MSC: That the General Education Committee recommend as general education courses these courses, subject to completion of specified minor adjustments:

Art 5 Humanities: Visual Art
Music 10 Humanities: Music
Physical Sci 20: Introduction to Chemistry
Physical Sci 45: Introduction to Astronomy
Behavioral Sci 5: General Anthropology
Behavioral Sci 6: Cultural Anthropology

Yes 9 No 0 Abstain 0

MSC: That the General Education Committee recommend as General Education courses these courses, subject to completion of specified revisions:

Social Sci 10: An Economic View of Society
Social Sci 32: United States History
Language Arts 35: Mass Communication
Humanistic Studies 40: Philosophers of the World
Biological Sci 10; General Biology

Yes 9 No 0 Abstain 0

MSC: That the General Education Committee recommend the following courses be conditionally accepted as General Education courses for the 1982-1983 Academic Year only. Specified major revisions must be completed during Fall, 1982, for the courses to be designated as General Education courses.

Biological Sci 5: Health Biology
Biological Sci 20: Principles of Biology
Biological Sci 25: Ecology
Physical Sci 5: Physical Science
Physical Sci 15: Introduction to Physics
Physical Sci 25: General College Chemistry
Language Arts 30: The Nature of Literature
Social Science 5: American Institutions and Ideals
Behavioral Sci 10: Psychology: Functional Aspects
Behavioral Sci 11: General Psychology
Behavioral Sci 15: Introduction to Sociology
Behavioral Sci 16: Introduction to Social Problems

Yes 8 No 0 Abstain 1

MSC: That the proposed new courses "Black Diamond; A Study of Geographical Concepts" and "Critical Perspectives" be returned to their authors for revision and resubmission to the General Education Committee.

Yes 8 No 0 Abstain 0

4. Discussion

Faced with the realization that a large proportion of the proposed courses need revision and/or further development, some serious, and that the end of the semester is near, the Committee considered ways to provide the time, process and support necessary for effective revision. The Committee kept in mind the paramount goal of the Tier One Project, which is to have in place by Spring, 1983, an array of well-designed, effective Tier I courses that truly satisfy the criteria. The Committee also recognized that Phase III, yet to come in Fall, 1982, is by the plan of the grant to be a time to teach, evaluate and further revise Tier I courses. At this time, there will be excellent opportunities to undertake curriculum development activities.

After consideration of several options, the Committee decided to:

4.1 To hold the final review for permanent designation of courses as General Education until late Fall, 1982, when Phase III has been in operation and authors have had opportunity to make minor and/or major revisions and development.

4.2 To sort the course outlines into three categories according to the degree of revision and/or development needed to satisfy the criteria. These groups are:

I. Those that satisfy the criteria, or very close; capture the "vision" of General Education and integrate the criteria; minor adjustments necessary only.

II. Those that are close to satisfying and integrating the criteria; revisions and/or further development necessary, some of it of a major nature.

III. Those that are clearly in the right direction in satisfying and integrating the criteria, but which need major revision and/or development.

4.3 To conditionally recommend as General Education courses, the courses listed in the motions above, subject to completing revisions and/or development.

4.4 To see that feedback will be provided to authors. Authors are urged to confer with members of their course teams for discussion of the Committee's recommendations and conditions.

4.5 To emphasize the on-going process of course development and to stress the necessity of curriculum development activities in Fall, 1982.

5. Next Meeting

The next meeting of the General Education Committee will be on Wednesday, May 19, 1982, 12:00 - 1:00 p.m. in Room 409.

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JOHN I. CARHART
President

2700 East Leland Road
Pittsburg, California 94565
Phone (415) 439-2181
(From Concord area 798-3600)

20 May 1982

TO: LMC Clusterpersons

FROM: Chet Case, Chair, General Education Committee

RE: Report and Minutes of Meeting, May 19, 1982

The General Education Committee met on Wednesday, May 19, 1982 in Room 409 from 12:05 to 1:45 p.m. Those present were:

S. Booher, C. Case, S. Chin, V. Custodio, C. Williams, B. Marshall, D. Livingston, G. Rodriguez, and J. Maltester

Guest: Connie Missimer

At all times a quorum was present.

Business

1. Update on course review process:

   1.1 Reports to course authors have been prepared and distributed. The reports contain general comments, the committee's recommendation, and specific conditions (see attachment for General Comments).

   1.2 Report and minutes of previous meeting were acknowledged.

2. Course Review

   2.1 MSC: That the General Education Committee recommend Social Science 21, Geography, as a general education course in Category I.

   Yes 9 No 0 Abstain 0

   2.2 MSC: That the General Education Committee recomend Humanistic Studies 40, Philosophers of the World, as a general education course in Category I.

   Yes 9 No 0 Abstain 0

2.3 MSC: That the General Education Committee recommend Humanistic Studies 41, Critical Perspectives, as a general education course in Category I.

Yes 9 No 0 Abstain 0

2.4 MSC: That because of extenuating circumstances, the General Education Committee consider Physical Science 35, General College Physics, although late in its submission for review, for approval as a Tier 1 general education course.

Yes 7 No 0 Abstain 0

2.5 MSC: That the General Education Committee recommend Physical Sciences 35, General College Physics, as a general education course in Category I.

Yes 7 No 0 Abstain 0

3. Discussion of Further TOP Activities

3.1 June workshop: It was recommended that course authors be invited to participate in a day long workshop, for compensation, on Wednesday, June 16, 1982, on the LMC campus. The program would consist of a practical workshop session on critical and effective thinking (definitions, instructional strategies, materials) conducted by Connie Missimer, and a general session of the General Education Committee and course authors in which the criteria and format will be discussed.

3.2 Summer Contracts: Course authors may work on Tier I courses during the summer for compensation, upon a written agreement with the appropriate dean, as to:

3.2.1 What is to be done
3.2.2 How it is to be done
3.2.3 By when it is to be done

Appropriate work might be any or all of these:

3.2.4. Location and preparation of instructional materials
3.2.5 Preparing reading lists
3.2.6 Development of labs, exercises, instructional procedures
3.2.7 Research in course content
3.2.8 Works on conditions specified by the General Education Committee.
3.2.9 Other appropriate and relevant work on a general education course

3.3 Pre-School Session: It was recommended that there be a day long session, for compensation, for general education course instructors on Tuesday, August 31, 1982 to plan and discuss Phase III of the Tier One Project. Specifics to be planned.

4. The need for the General Education Committee to critique the criteria, the position paper and course outline format in the Fall was noted.

5. Meeting adjourned at 1:45 with next meeting not set.

## APPENDIX K

List of General Education Experts

Consulted on Tier One Criteria Position Paper

and

Letter

## T.O.P. CONSULTANTS

Dr. Barbara Bundy, President
Dominican College
San Rafael, California

Dr. Arthur Cohen
University of California,
Los Angeles, California

Dr. Sanford Dornbusch, Reed-Hodgson Professor of Human Biology
and Professor of Sociology and Education
Stanford University
Stanford, California

Dr. Jerry Gaff, Director for the Center of General Education
American Association of Colleges
Washington, D.C.

Dr. Arthur Levine
Carnegie Foundation
Washington, D.C.

Dr. Jeffrey Lukenbill, Vice Chancellor
Miami Dade Community College District
Miami Lakes, Florida

Dr. Terrance O'Banion, Vice Chancellor
Dallas County Community College District
Dallas, Texas

LOS
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COLLEGE

December 14, 1981

Dr. Barbara Bundy
President
Dominican College
Grand and Acacia Streets
San Rafael, CA 94901

Dear Dr. Bundy:

We want to thank you for taking time out at this busy time of the year to assist us in the development of criteria for Tier I of our general education model.

JOHN I. CARHART
President

Precisely, we would like you to consider and give us your written comments on the following:

- Will they indeed function as criteria, i.e. will they discriminate general education from non-general education?
- Are the criteria comprehensive?
- Do they seem to be consistent with general education theory as you know it?
- Are they central in significance to what general education should be?
- Do they seem workable?

In the next phase of this project we will be developing course outlines to satisfy the criteria. Do you have any suggestions for specialists who might help as consultants in the content and pedagogy relating to the criteria, i.e. "Modes of Inquiry," "Interdisciplinary," "Creativity," etc., etc.?

So that you understand what the "Tier I Project" is all about, we are enclosing a set of materials. (Despite the volume, it really isn't the whole load of hay!) Enclosed are:

2700 Leland Road
Pittsburg, Calif. 94565
Phone (415) 439-2181

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- "General Education at Los Medanos College"
- "Philosophic Considerations Underpinning the Los Medanos College General Education Model"
- "A Report on the General Education Model of Los Medanos College"—an end of previous grant report to the National Endowment for the Humanities
- A memorandum from President Jack Carhart to the faculty and administrators titled "The LMC General Education Model"
- "Background and Development of the Tier I Project"

Hopefully, these won't prove to be overwhelming and that they will lead you into the position paper, "Tier I Criteria and Procedures for Their Application." (It should be hastily pointed out this paper is a working paper and has not been edited.)

JOHN I. CARHART
President

If there is still some need for clarification, please feel free to call me at the college or at my home in the evening. My telephone number is (415)933-3517. If I'm not available, you might call Dr. Charles Collins, the project's general consultant. His home phone is (415)527-6278.

As Karl Drexel indicated to you, we intend to pay you an honorarium of $300 for your contribution. Because we must complete this first phase by early February, we need to have your response as soon as possible—no later than the 15th of January.

We look forward to receiving your frank and thoughtful ideas and suggestions.

Sincerely,

Chester Case
Program Director

CC:cs

P.S. For pay purposes we need to have your Social Security number. Please send on enclosed postcard.

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Pittsburg, Calif. 94565
Phone (415) 439-2181

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